ISSN 0308-3675

MERLEWOOD RESEARCH AND DEVELOPMENT PAPER

No 86

LAND CLASSES IN GREAT BRITAIN:

PRELIMINARY DESCRIPTIONS FOR USERS OF THE MERLEWOOD METHOD OF LAND CLASSIFICATION

by

R G H BUNCE, C J BARR & H A WHITTAKER

Institute of Terrestrial Ecology
Merlewood Research Station
Grange-over-Sands
Cumbria
England
LA11 6JU

December 1981

Suggested citation:

BUNCE R G H, BARR C J & WHITTAKER H A

Land Classes in Great Britain:
Preliminary descriptions for users of the Merlewood method of land classification. (Merlewood research and development paper No. 86). Grange-over-Sands: Institute of Terrestrial Ecology.

C O N T E N T S

INTRODUCTION

A land classification for Great Britain was produced as a framework for field sampling of ecological land use characteristics. The main features of the land classes are described here as background documentation for current and future users.

This paper does not provide a full technical account of the procedure used to derive the land classes since understanding their derivation is not essential to their use. The basic data set included as wide a range of information on the British environment as possible, so that an overall picture of its composition could be obtained. The data were obtained from a sampling grid of 1228 squares within a 15 x 15 km grid. A 1 km square unit was used, analagous to a quadrat for sampling vegetation, as a compromise between a sufficiently large sample area to obtain adequate information, and a small enough area to allow subsequent field sampling.

The dichotomous classification was terminated at an arbitrary level of 32 classes for Britain. On a regional basis, further divisions of these classes are possible, which maintain their identity at a national level, but allow for regional differentiation. There is therefore flexibility within the system - the structure of classes is a convenience, and not a "final solution", as hierarchical classifications are often considered.

Current taxonomic practice, with highly continuous variation, is to halt the analysis at the point where the number of classes produced is convenient for the purpose of the particular study. Subsequent analysis may show certain classes to be relatively heterogeneous, in which case further divisions can be made. For some studies it may be necessary to combine classes but for simplicity such options have not been included.

Verbal descriptions of the land classes convey impressions of underlying relationships and provide guidelines to interpretation. The need for such descriptions has become progressively urgent since the pressure of other work is such that a full scale report on the whole project is unlikely to be produced immediately. The present document has thus been produced to provide interim information; the data set will be updated as analyses and verification proceed. Any reactions are welcome and suggestions may be incorporated in subsequent drafts.

The number identifying each of the classes becomes a familiar label during the process of data handling. Generally land classes with adjacent numbers have more in common, because of the way they are derived, although this is not always so. The descriptions can hopefully be understood by people from a range of disciplines because technical terms have been avoided where possible.

We must emphasize that the land classes are statistically derived divisions within the environmental patterns present in Great Britain. The range of certain factors may overlap land classes but the objective has been to hold as many as possible constant within a given class. Provided that appropriate criteria have been used to derive the classes, there will be correlation with attributes other than those that were actually used.

The method of numerical analysis used, Indicator Species Analysis, identifies environmental attributes which are most useful for discriminatory purposes at each level of classification. Whilst there is a wide separation between the extremes of the British environment, in between many features merge and sharp boundaries do not exist. The present technique of land classification is not designed to identify small, unique areas of land but, where these are sufficiently extensive to have strong intercorrelations between their attributes, they are identified as separate classes.

Although the initial proportion of squares sampled was low, the land class composition within regions remains stable after an increase in the sampling intensity. But an increase in sample size does lead to improved geographical resolution. For example a low sampling intensity will pick out Exmoor as a unit but a much higher intensity is required to define the valley systems within the moor.

Personal judgement was not involved in the separation of the classes. However, a choice is necessarily exercised in the selection of the original data inputs but, whilst minor alterations in the final groupings might result from different balances in the data, the guideline followed was that of inclusion. We rely upon the analytical procedure to identify the key attributes. Indicator Species Analysis was used both because it produces a key which can be used to assign any km^2 square in Britain to its appropriate class quickly and because it can deal with large data sets. Other numerical techniques may be equally applicable and would produce similar results, perhaps differing slightly by drawing boundaries between classes in different places. Recent discussions of methodology are given by Howard (1977) and Van der Maarel (1980). There is no perfect solution, but only relatively minor increases in efficiency are likely to result from using alternative procedures. Such differences are likely to be small in comparison with the inherent ecological variation in the field.

THE APPROACH

The principle is that, if strata determined on the analysis of environment can be shown to have sufficiently high correlations with ecological parameters observed in the field, then they can be used for predictive purposes. The original study was carried out in a small test area before being extended first to the Lake District National Park (Bunce *et al.* 1975) to Shetland, and then to the whole of Cumbria (Bunce & Smith 1978). In the latter study high correlations were shown between the map stratification and the vegetation of the county. The main project (Bunce *et al.* 1980) has 3 phases:

Phase I — Analysis. Environmental data were recorded from maps using a grid of 1 Km squares as a sampling frame. These data were analysed by Indicator Species Analysis to produce the 32 land classes which reflect arbitrary but reproduceable separations of the land surface.

Phase II — Survey. 8 squares were drawn at random from each of the 32 land classes and field records made of vegetation, soils, land use and ecological features.

Phase III — Prediction. The field data show a high degree of correlation with the land classes which justifies their inclusion in the land class descriptions.

The climate and topography given in the descriptions are therefore determined from the initial map analysis, whereas the other data are derived from surveys. The distribution patterns are determined solely from the map analysis.

The land class descriptions are here presented in 3 stages, progressively increasing in detail, to cover a range of uses. The first stage (p. 5) provides labels that convey an impression of the principal characteristics of the particular class, (involving mean values or typical geographical area). The second (p. 6) gives both summaries of the salient features of the land classes (in verbal rather than numerical terms) and some indication of the variability. The land classes have many dimensions, both physical and biological, and selection was involved at this stage, to identify the features to characterize a particular land class. The third stage of the presentation is the provision of numerical information, combined with the geographical distribution of the land classes. Eventually further information will be available for other features, such as hedgerow length and stream types.

The progressive increase in complexity of the descriptions gives some idea of the range of associated factors that go into the make-up of the land classes. The reason for such associations are the intercorrelations between ecological factors.

Because of the need to produce the present report in a short time not all the figures have been verified: any inconsistencies should be sent to the authors.

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STAGE I THE MAIN CATEGORIES

1. Undulating country, varied agriculture, mainly grassland.
2. Open, gentle slopes, often lowland, varied agriculture.
3. Flat arable land, mainly cereals, little native vegetation.
4. Flat, intensive agriculture, otherwise mainly built-up.
5. Lowland, somewhat enclosed land, varied agriculture and vegetation.
6. Gently rolling enclosed country, mainly fertile pastures.
7. Coastal with variable morphology and vegetation.
8. Coastal, often estuarine, mainly pasture, otherwise built-up.
9. Fairly flat, open intensive agriculture, often built-up.
10. Flat plains with intensive farming, often arable/grass mixtures.
11. Rich alluvial plains, mainly open with arable or pasture.
12. Very fertile coastal plains with very productive crops.
13. Somewhat variable land forms, mainly flat, heterogeneous land use.
14. Level coastal plains with arable, otherwise often urbanised.
15. Valley bottoms with mixed agriculture, predominantly pastural.
16. Undulating lowlands, variable agriculture and native vegetation.
17. Rounded intermediate slopes, mainly improvable permanent pasture.
18. Rounded hills, some steep slopes, varied moorlands.
19. Smooth hills, mainly heather moors, often afforested.
20. Midvalley slopes, wide range of vegetation types.
21. Upper valley slopes, mainly covered with bogs.
22. Margins of high mountains, moorlands, often afforested.
23. High mountain summits, with well drained moorlands.
24. Upper, steep, mountain slopes, usually bog covered.
25. Lowlands with variable land use, mainly arable.
26. Fertile lowlands with intensive agriculture.
27. Fertile lowland margins with mixed agriculture.
28. Varied lowland margins with heterogeneous land use.
29. Sheltered coasts with varied land use, often crofting.
30. Open coasts with low hills dominated by bogs.
31. Cold exposed coasts with variable land use and crofting.
32. Bleak undulating surfaces mainly covered with bogs.

STAGE II BRIEF SUMMARIES

Seven headings were selected for the main features that would be useful in defining the classes. They are mainly self explanatory but some notes are given below to show the guidelines used in the interpretation.

Geography: **the main centres of distribution only are given, outliers are frequently present.**

Land form: **from the land forms present in 8 sample squares - it proved difficult to arrive at precise descriptions in the lowlands.**

Topography: derived from the mean values, presented in greater detail in the stage III summaries.

Landscape: interpretation of the type of landscape present combined with attributes recorded as frequently present in the field survey.

Land use: the 3 or 4 categories from the measurement of areas recorded in the field survey.

Soils: the most commonly recorded soils in the land classes derived from the 40 pits dug in the sample squares for each class.

Vegetation: refers only to native vegetation (ie that which is not intensively managed) and treated only in broad categories, although the major species are taken as those with the highest average cover from the 40 vegetation plots.

LAND CLASS : ONE

Geography: S. Wales, S.W. England, S. England.

Land form: Alluvial plain, low ridges or plateaus with litte surface drainage.

Topography: Gently rolling country or almost flat country mainly at medium to low altitu

Landscape: Varied lowland landscapes with hedges, trees and farm buildings.

Land use: Cereals, good grasslands and limited native vegetation.

Soils: Mainly brown earths but also gleys.

Vegetation: Limited but grassland where present.

LAND CLASS : TWO

Geography: S. England, S.W. Midlands.

Land form: Downland summits and scarps, low ridges or occasionally alluvial plains.

Topography: Sweeping curves or smooth slopes with land at medium low or low altitudes.

Landscape: Mainly open or wooded downland with few hedges and scattered farmhouses.

Land use: Mainly good grassland but extensive cereals and built up land.

Soils: Brown earths or calcareous brown earths.

Vegetation: Rough grassland or bracken where present.

LAND CLASS : THREE

Geography: E. Anglia, S.E. England.

Land form: Alluvial plains or shallow river valleys with low broad ridges.

Topography: Flat or almost flat with virtually all land at low altitude.

Landscape: Prairie type lowlands with intensive agriculture and declining hedges.

Land use: Cereals, other crops and short term grassland.

Soils: Gleys, calcareous brown earths and brown earths.

Vegetation: Virtually absent.

LAND CLASS : FOUR

Geography: E. Anglia margins, S. England, S. Midlands.

Land form: Fenland or flood plains with intricate drainage patterns.

Topography: Flat or virtually flat, almost entirely at low altitude.

Landscape: Intensively farmed lowlands often under urban pressure.

Land use: Arable, with cereals and other crops, good grassland and urban.

Soils: Gleys with some calcareous brown earths.

Vegetation: Virtually absent.

LAND CLASS : FIVE

Geography: S. England, S.W. England, S.W. Midlands, S. Wales.

Land form: Variable from scarpland to downland and valley floors.

Topography: Uniform gentle slopes or smooth outlines mostly at low altitude.

Landscape: Varied lowlands with many natural features.

Land use: Mixed farmland although predominantly good grass; much urban.

Soils: Gleys and brown earths predominate.

Vegetation: Limited but varied where present from bracken to rushes.

LAND CLASS : SIX

Geography: S.W. England, S. Wales and S.W. Midlands.

Land form: Dissected tablelands and plateaus with many small rivers.

Topography: Complex with many broad even slopes and the majority of land at medium/low alti

Landscape: Intricate with small fields enclosed by hedges on banks with small woodlands.

Land use: Mainly good grassland but with some barley.

Soils: Brown earths and gleys predominate.

Vegetation: Limited to small areas.

LAND CLASS : SEVEN

Geography: S. England, S.W. England and Wales coasts.

Land form: Variable coastal morphology, mainly cliffs cut into tablelands.

Topography: Usually coastal cliffs, rarely estuarine, most land low altitude.

Landscape: Varied coasts backed by lowland farmland with farm houses.

Land use: Mainly pasture with some arable and good grass.

Soils: Brown earths but also other types.

Vegetation: Limited, but varied particularly moorland and grassland types.

LAND CLASS : EIGHT

Geography: E. Anglia, S. England, Wales, N.W. England coasts.

Land form: Marine alluvial plains bordering estuaries or rarely rocky coasts.

Topography: Mainly flat but with some steeper coasts, most land low altitude.

Landscape: Usually flat coasts backed by good farmland effected by urban development.

Land use: Mainly pasture but some arable, extensive mudflats and urban development.

Soils: Gleys and brown earths.

Vegetation: Limited, but rough grassland where present.

LAND CLASS : NINE

Geography: N. Midlands, N.E. England, S.E. Scotland.

Land form: Mainly valley floors and flood plains of large rivers together with bluffs.

Topography: Almost flat or gently rolling, most land medium/low altitude.

Landscape: Open lowland country often with declining hedges, intensive agriculture.

Land use: Mixture of good grass and arable with many urban areas.

Soils: Brown earths, gleyed brown earths and gleys.

Vegetation: Very limited, bracken or rough grassland where present.

AND CLASS : TEN

eography: N. Midlands, N.E. England, S.E. Scotland.

and form: Mainly valley floors or alluvial plains often with moderate scarps on margins.

opography: Gentle slopes, often long with the majority of land medium/low but also low alti

andscape: Well farmed lowland country with many hedgerows and small woods.

and use: Mainly arable but with good grassland and pasture also widespread.

oils: Gleys with some brown earths.

egetation: Very restricted.

AND CLASS : ELEVEN

eography: E. and C. Midlands.

and form: Alluvial plains or low broad ridges drained by small streams.

opography: Very gradual slopes or flat with almost all land at low altitude.

andscape: Open landscapes with large fields and declining hedgerows.

and use: Arable predominates particularly wheat with good grassland and urban.

oils: Gleys and brown earths.

egetation: Very restricted.

AND CLASS : TWELVE

eography: E. Midlands and Fens.

and form: Mainly fens or flood plains and large rivers otherwise graded ridges.

opography: Flat or almost flat entirely at low altitude.

andscape: Prairie landscapes with derelict hedges and urban development.

and use: Arable, mainly wheat with limited good grassland and urban.

oils: Gleys and brown earths.

egetation: Virtually absent.

LAND CLASS : THIRTEEN

Geography: N. Wales, N.W. England, S.W. Scotland.

Land form: Heterogeneous, from low ridges in alluvial plains to scarps and river valleys

Topography: Smooth slopes, rarely steeper almost entirely at low altitudes.

Landscape: Varied lowland landscapes with hedged small fields often affected by urban.

Land use: Usually mixtures of arable and good grassland but also variety of other uses

Soils: Gleys and brown earths predominate but other types often present.

Vegetation: Bracken and rough grassland, but also some moorland.

LAND CLASS : FOURTEEN

Geography: N.W. and N.E. England, S.W. Scotland.

Land form: Mainly marine or alluvial flood plains bordering estuaries; rarely rocky coast

Topography: Flat or gently sloping with the majority of land at low altitude.

Landscape: Prairie landscapes with fences or neglected hedges much affected by urban dev

Land use: Mainly arable but also good grassland and much urban.

Soils: Gleys, gleyed brown earths and brown earths.

Vegetation: Very little present.

LAND CLASS : FIFTEEN

Geography: Wales, N. England.

Land form: Variable from dissected plateaus to valley floors bordered by escarpments.

Topography: Complex with shallow or occasionally steep slopes, flat land almost entirely medium/low altitude.

Landscape: Intricate lowland landscapes with many natural features.

Land use: Mainly pasture mixed with good land and arable.

Soils: Brown earths, gleys and some brown podzolics.

Vegetation: Restricted but mainly rough grassland and some bracken.

AND CLASS : SIXTEEN

eography: N. England, S.W. Scotland.

and form: Flood plains or valley floors with escarpments or gently folded.

opography: Mainly undulating land with some flat areas mainly at low altitudes.

andscape: Varied lowland, well farmed landscapes with many hedges.

and use: Varied with mixtures of arable pasture and good grassland.

oils: Brown earths and gleys.

egetation: Varied but with grassland types predominating and some moorland.

AND CLASS : SEVENTEEN

eography: S.W. England, Wales, N. England.

and form: Plateaus or tablelands, with scarps often dissected by small rivers.

opography: Some gentle slopes butmainly quite steep hillsides at medium/high altitude.

andscape: Open or enclosed marginal uplands with walls fences and occasional farmhouses.

and use: Mainly pastures with some good grassland.

oils: Brown earths and brown podsolics but a range of other soils.

egetation: Mainly rough grassland types but also some moorland.

AND CLASS : EIGHTEEN

eography: Wales, N. England, W. Scotland.

and form: Glaciated river valleys with steep scarps backing onto tablelands or distinct mountains.

opography: Steep hillsides predominate with some more moderate slopes mainly at medium high altitudes.

andscape: Mainly open rugged uplands but with some areas transitional to enclosed land.

and use: Predominantly rough grazing with some limited pasture land.

oils: Brown podsolics, brown rankers, peats and other upland types.

egetation: Mainly moorland with extensive peatland and montane grassland.

LAND CLASS : NINETEEN

Geography: N. England, S. Scotland.

Land form: Broad ridges or flat topped, or rounded summits with small rivers with flat

Topography: Mainly moderately steep slopes but also some rather steep hillsides at mediu altit

Landscape: A mixture of enclosed upland but also open mountains often afforested.

Land use: Mainly rough grazing or forest but some pasture.

Soils: Varied upland type but brown earths, podsols and peats the most abundant.

Vegetation: Mainly moorland but also mountain grass and peat types.

LAND CLASS : TWENTY

Geography: N. England and S. Scotland.

Land form: River valleys often with subsidiaries and scarps backing onto rounded hills.

Topography: Often complex including steep hillsides and more moderate gradients at mediu altitu

Landscape: Mixtures of upland and marginal lowland with fences and walls.

Land use: Much pasture but some good grassland and occasional crops.

Soils: Gleys and brown earths with some other upland types.

Vegetation: Mainly rough grassland types but some peatland also.

LAND CLASS : TWENTY-ONE

Geography: C. and N. Scotland.

Land form: Peneplain surfaces with complex drainage or broad ridge with indistinct summ

Topography: Predominantly quite steep hillsides but also some more moderate slopes.

Landscape: Bleak upland landscapes, sometimes enclosed by walls or fences and afforested

Land use: Open range grazing or forest.

Soils: Peats, peaty gleys or podsols.

Vegetation: Moorland or peatland types with some rough grassland.

LAND CLASS : TWENTY-TWO

Geography: N. England, S., C. and N. Scotland.

Land form: Dip slopes of plateaus or broad glacial valleys leading to rounded summits.

Topography: Slopes of variable gradient from steep to moderate and almost entirely at mediu high altitude:

Landscape: Mainly high moors but sometimes enclosed or afforested.

Land use: Mainly rough grazing but also woodland and occasional crops.

Soils: Peaty gleys,peaty podsols and peats but also other upland soils.

Vegetation:

LAND CLASS : TWENTY-THREE

Geography: N. England, C. and N. Scotland.

Land form: Ridges, scarps and corries leading to mountain summits or rarely glaciated valle

Topography: Extremely steep hillsides, sometimes less so, with the land at high altitudes.

Landscape: Open mountainous landscapes with wide vistas.

Land use: Limited open range grazing.

Soils: Peats, peaty podsols, podsols and brown rankers.

Vegetation: Mainly moorland types but also mountain grassland and peatland types.

LAND CLASS : TWENTY-FOUR

Geography: C. and W. Scotland.

Land form: Glaciated valley sides often reaching from base to rocky summits sometimes peaks emergent from peneplains.

Topography: Precipitous and extremely steep slopes with land at high altitude.

Landscape: Rugged mountain scenery often rocky with fast flowing streams.

Land use: Limited open range grazing.

Soils: Brown rankers, peats or peaty podsols, some peaty gleys.

Vegetation: Mainly peatland types but also mountain grassland and moorland.

LAND CLASS : TWENTY-FIVE

Geography: N.E. England, S.E., C. and N.E. Scotland.

Land form: Alluvial, flood plains and morraines of glacial origin.

Topography: Virtually flat or gently rolling land mainly at low altitudes.

Landscape: Intensively farmed lowlands with fences and scattered farmhouses.

Land use: Mainly barley but with much good grassland.

Soils: Brown earths, gleys and gleyed brown earths.

Vegetation: Restricted to a few grassland types.

LAND CLASS : TWENTY-SIX

Geography: N.E. England, C. and E. Scotland.

Land form: Valley floors, and coastal plains of glacial origin, sometimes with emergent outcrop

Topography: Undulating or smooth slopes mainly at low altitudes.

Landscape: Rather mixed lowland landscapes often affected by urban development.

Land use: Mainly good grassland but also much barley and pasture.

Soils: Brown earths and gleys.

Vegetation: Limited but mainly moorland types where present.

LAND CLASS : TWENTY-SEVEN

Geography: N. England, C., E. and N.E. Scotland.

Land form: Varied but mainly valley floors and bluffs occasionally with ridges and scarp

Topography: Variable from mixtures of gentle and steep slopes to uniform moderate gradien mainly at medium low or low altitu

Landscape: Mainly well fenced lowlands, often mixed with woodland.

Land use: Arable, particularly barley but also much pasture and good grassland.

Soils: Brown earths and gleys.

Vegetation: Restricted but some grassland and moorland types.

LAND CLASS : TWENTY-EIGHT

Geography: N. England, S. and N.E. Scotland.

Land form: Heterogeneous from meandering riversides to peneplains or alluvial plains.

Topography: Mainly virtually flat but some gentle gradients at medium/low altitudes.

Landscape: Heterogeneous from enclosed farmed landscapes to open moorland.

Land use: Pasture or rough grazing predominate but some good grasslands also.

Soils: Variable but mainly gleys, brown earths or peats.

Vegetation: Mainly peatland types where present but also grassland and moorland.

LAND CLASS : TWENTY-NINE

Geography: W. Scotland.

Land form: Indented coastlines with more cut platforms and raised beaches.

Topography: Uneven topography, usually with easy slopes but some steeper areas at low or medium/low altitudes.

Landscape: Complex scenery containing many contrasting elements.

Land use: Mainly open range grazing but also some crofting.

Soils: Mainly peats but also rankers and brown earths.

Vegetation: Mainly peatland and moorland types but also some bracken.

LAND CLASS : THIRTY

Geography: Extreme W. Scotland.

Land form: Mainly peneplains with meandering streams sometimes with low hills.

Topography: Variable from complex to almost flat at medium low extending to medium high altitude

Landscape: Open moorlands near to the sea with rocky outcrops and lochs.

Land use: Open range grazing and crofting.

Soils: Mainly peats with some peaty podsols.

Vegetation: Mainly peatland with some moorland types.

LAND CLASS : THIRTY-ONE

Geography: N. Scotland and Isles.

Land form: Drowned coastlines, indented with some coastal plains backed by low hills.

Topography: Mainly broad gentle curved outlines and some steeper areas mainly at low/medi
altitu

Landscape: Windswept, exposed coasts with the enclosed land divided into small fields.

Land use: Mainly rough grazing but some good grassland and pasture with crofting.

Soils: Brown earths peats and some podsols.

Vegetation: Mainly moorland but also some peatland and grassland types.

LAND CLASS : THIRTY-TWO

Geography: N.W. Scotland and Isles.

Land form: Peneplain surfaces or low ridges, sometimes coastal.

Topography: Variable from complex to even rounded slopes mainly at medium/low altitudes.

Landscape: Bleak moorlands often with scattered lochs and eroding peat hags.

Land use: Mainly open range grazing but some pasture.

Soils: Mainly peats but some rankers.

Vegetation: Predominantly peatland types but also some moorland.

STAGE III Numerical summaries

The topographic and climatic figures are given as mean values and were derived from the 1228 km^2 squares of the original data divided into appropriate land classes. The soils and native species data were derived as mean values from the 40 plots (ie. 5 plots in each of the 8 sample squares). The land use data were determined by measuring areas in the 8 sample squares and calculating the mean values presented here. The landscape features occurred in more than 6 of the 8 sample squares for each land class. The distribution maps are based on 5952 squares, the original centre squares of the grid, plus a further 4 squares situated regularly around these, which were run down using the key from the analysis.

LAND CLASS ONE

TOPOGRAPHY

Mean max. altitude (m)	.....	114 (L)
Mean min. altitude (m)	.....	70
Altitude class 0- 76m	.....	40
(mean 77- 198m	.....	53
percentage 199- 488m	.....	6
area) 489-1189m	.....	-
Slope (°)	.....	3

CLIMATE

Mean min. temp. January	(°) ..	1.6
Mean max. temp. July	(°) ..	21.1
Mean soil deficit	(mm) ..	10.7
Mean annual rainfall	(mm) ..	8.0
Mean snowfall	(days) ..	19.1
Duration bright sunshine	(hrs) ..	6.2

SOILS

Mean pH	5.8
Mean loss on ignition (%)	10.8

Percentage of total area

Brown earths	52.5
Rendzinas	-
Gleys	25.0
Gleyed brown earths	15.0
Brown podsolic soils	-
Rankers	-
Calcareous brown earths	-
Peaty podsols	-
Podsols	7.5
Peaty gleys	-
Peats	-

LAND USE

Percentage of total area

Wheat	4.2
Barley	10.9
Other Crops	6.3
Horticulture	2.7
Leys	25.4
Permanent grass	19.6
Rough pasture	3.3
Bracken	0.5
Rushes	0.4
Moorland	1.3
Peatland	2.6
Mountain grass	-
Woodland	4.0
Cliffs/sand/mud	-
Built-up	12.6

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass	10.2
Ling heather	1.4
Common bent	2.8
Purple moor grass	1.6
Yorkshire fog	4.3
White clover	2.5
Cocksfoot	1.4
Matgrass	-
Bracken	-
Crested dogstail	1.3
Italian rye grass	3.0
Timothy	2.6
Deer grass	0.1
Sheeps fescue	1.3
Creeping bent	1.3

LANDSCAPE

Barbed wire
Complete hedges
Hedgerow trees

Detached houses
Vernacular local
Farmhouses
Barns/Shippons
Tile roofs

LAND CLASS TWO

TOPOGRAPHY

Mean max. altitude (m)	.....	125 (L)
Mean min. altitude (m)	.....	73
Altitude class	0- 76m.....	42
(mean	77- 198m.....	54
percentage	199- 488m.....	4
area)	489-1189m.....	-
Slope	(°)	3

CLIMATE

Mean min. temp. January	(°)..	1.2
Mean max. temp. July	(°)..	21.5
Mean soil deficit	(mm)..	10.7
Mean annual rainfall	(mm)..	8.0
Mean snowfall	(days)..	20.2
Duration bright sunshine	(hrs)..	6.4

SOILS

Mean pH	6.7
Mean loss on ignition (%)	10.7

Percentage of total area

Brown earths.....	22.5
Rendzinas.....	25.0
Gleys.....	17.5
Gleyed brown earths.....	-
Brown podsolic soils.....	-
Rankers.....	-
Calcareous brown earths.....	27.5
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	1.2
Barley.....	10.4
Other Crops.....	6.0
Horticulture.....	0.5
Leys.....	21.6
Permanent grass.....	8.5
Rough pasture.....	3.5
Bracken.....	1.8
Rushes.....	0.1
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	25.5
Cliffs/sand/mud.....	-
Built-up.....	20.2

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	10.8
Ling heather.....	-
Common bent.....	1.8
Purple moor grass.....	-
Yorkshire fog.....	1.8
White clover.....	1.8
Cocksfoot.....	1.5
Matgrass.....	-
Bracken.....	5.3
Crested dogstail.....	-
Italian rye grass.....	6.5
Timothy.....	1.1
Deer grass.....	-
Sheeps fescue.....	-
Creeping bent.....	2.8

LANDSCAPE

Neglected hedges
Hedges with gaps
Barbed wire
Tiled roofs

LAND CLASS THREE

TOPOGRAPHY

Mean max. altitude (m)	.....	67
Mean min. altitude (m)	.....	40
Altitude class (mean percentage area)	0- 76m.....	80
	77- 198m.....	19
	199- 488m.....	1
	489-1189m.....	-
Slope (°)	.....	2

CLIMATE

Mean min. temp. January	(°)..	0.6
Mean max. temp. July	(°)..	12.0
Mean soil deficit	(mm)..	12.7
Mean annual rainfall	(mm)..	6.8
Mean snowfall	(days)..	19.3
Duration bright sunshine	(hrs)..	6.2

SOILS

Mean pH	7.1
Mean loss on ignition (%)	4.7

Percentage of total area

Brown earths.....	27.5
Rendzinas.....	
Gleys.....	35.0
Gleyed brown earths.....	7.5
Brown podsolic soils.....	
Rankers.....	
Calcareous brown earths.....	30.0
Peaty podsols.....	
Podsols.....	
Peaty gleys.....	
Peats.....	

LAND USE

Percentage of total area

Wheat.....	24.0
Barley.....	23.0
Other Crops.....	15.2
Horticulture.....	2.0
Leys.....	16.7
Permanent grass.....	5.1
Rough pasture.....	-
Bracken.....	-
Rushes.....	-
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	2.4
Cliffs/sand/mud.....	-
Built-up.....	10.7

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	12.9
Ling heather.....	-
Common bent.....	-
Purple moor grass.....	-
Yorkshire fog.....	0.6
White clover.....	0.3
Cocksfoot.....	1.4
Matgrass.....	-
Bracken.....	-
Crested dogstail.....	0.8
Italian rye grass.....	-
Timothy.....	0.3
Deer grass.....	-
Sheeps fescue.....	0.8
Creeping bent.....	1.4

LANDSCAPE

Wood post and rail
Managed hedges
Neglected hedges
Hedges with gaps
Hedgerow trees < 5 m
Hedgerow trees > 5 m
Roadside trees
Copses under 5 ha
Ivy on trees
Vernacular (local)
Detached houses
Tile roofs
Barn/Shippons

LAND CLASS FOUR

TOPOGRAPHY

Mean max. altitude (m)	.....	34 (L)
Mean min. altitude (m)	.....	20
Altitude class 0- 76m	.....	91
(mean 77- 198m	.....	9
percentage 199- 488m	.....	-
area) 489-1189m	.....	-
Slope (°)	.....	1

CLIMATE

Mean min. temp. January	(°)..	0.9
Mean max. temp. July	(°)..	20.9
Mean soil deficit	(mm)..	12.8
Mean annual rainfall	(mm)..	6.5
Mean snowfall	(days)..	19.2
Duration bright sunshine	(hrs)..	6.3

SOILS

Mean pH	7.1
Mean loss on ignition (%)	10.1

Percentage of total area

Brown earths	25.6
Rendzinas	-
Gleys	53.8
Gleyed brown earths	-
Brown podsolic soils	-
Rankers	-
Calcareous brown earths	10.2
Peaty podsols	-
Podsols	-
Peaty gleys	5.1
Peats	-

LAND USE

Percentage of total area

Wheat	8.6
Barley	6.8
Other Crops	8.0
Horticulture	4.9
Leys	13.8
Permanent grass	1.3
Rough pasture	-
Bracken	-
Rushes	-
Moorland	-
Peatland	-
Mountain grass	-
Woodland	0.7
Cliffs/sand/mud	0.3
Built-up	38.8

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass	5.0
Ling heather	-
Common bent	3.4
Purple moor grass	-
Yorkshire fog	0.4
White clover	0.4
Cocksfoot	0.5
Matgrass	-
Bracken	-
Crested dogstail	0.8
Italian rye grass	0.6
Timothy	0.5
Deer grass	-
Sheeps fescue	0.1
Creeping bent	7.3

LANDSCAPE

Barbed wire fences
Managed hedges
Roadside trees
Ditches > 1m slow
Barn/Shippon

LAND CLASS FIVE

TOPOGRAPHY

Mean max. altitude (m)	.....	112 (L)
Mean min. altitude (m)	.....	59
Altitude class (mean percentage area)	0- 76m.....	62
	77- 198m.....	29
	199- 488m.....	8
	489-1189m.....	-
Slope (°)	.....	4

CLIMATE

Mean min. temp. January	(°)..	1.6
Mean max. temp. July	(°)..	12.2
Mean soil deficit	(mm)..	8.5
Mean annual rainfall	(mm)..	9.2
Mean snowfall	(days)..	17.8
Duration bright sunshine	(hrs)..	6.1

SOILS

Mean pH	5.6
Mean loss on ignition (%)	10.8

Percentage of total area

Brown earths.....	32.5
Rendzinas.....	-
Gleys.....	32.5
Gleyed brown earths.....	7.5
Brown podsolic soils.....	-
Rankers.....	-
Calcareous brown earths.....	10.0
Peaty podsols.....	-
Podsols.....	2.5
Peaty gleys.....	10.0
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	0.2
Barley.....	8.6
Other Crops.....	2.8
Horticulture.....	5.2
Leys.....	12.6
Permanent grass.....	17.6
Rough pasture.....	5.4
Bracken.....	0.6
Rushes.....	1.3
Moorland.....	0.1
Peatland.....	0.1
Mountain grass.....	0.3
Woodland.....	13.2
Cliffs/sand/mud.....	-
Built-up.....	29.7

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	13.6
Ling heather.....	-
Common bent.....	8.1
Purple moor grass.....	-
Yorkshire fog.....	5.6
White clover.....	2.1
Cocksfoot.....	2.0
Matgrass.....	0.1
Bracken.....	3.2
Crested dogstail.....	1.5
Italian rye grass.....	1.5
Timothy.....	1.3
Deer grass.....	-
Sheeps fescue.....	1.5
Creeping bent.....	0.6

LANDSCAPE

Barbed wire fences
Managed hedges
Neglected hedges
Hedgerow trees < 5 m
Unfenced mature woodlands
Parkland trees
Ivy on trees
Embankments
Streams
Vernacular (local)
Vernacular (non-local)
Detached houses
Bungalows

LAND CLASS SIX

TOPOGRAPHY

Mean max. altitude (m)	.....	147 (L)
Mean min. altitude (m)	.....	75
Altitude class 0- 76m	.....	21
(mean 77- 198m	.....	68
percentage 199- 488m	.....	9
area) 489-1189m	.....	-
Slope (°)	.....	4

CLIMATE

Mean min. temp. January	(°)..	2.8
Mean max. temp. July	(°)..	12.3
Mean soil deficit	(mm)..	6.0
Mean annual rainfall	(mm)..	11.1
Mean snowfall	(days)..	12.9
Duration bright sunshine	(hrs)..	6.2

SOILS

Mean pH	5.0
Mean loss on ignition (%)	15.3

Percentage of total area

Brown earths.....	45.0
Rendzinas.....	5.0
Gleys.....	22.5
Gleyed brown earths.....	10.0
Brown podsolic soils.....	-
Rankers.....	2.5
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	12.5
Peaty gleys.....	2.5
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	13.7
Other Crops.....	2.9
Horticulture.....	0.2
Leys.....	27.1
Permanent grass.....	30.0
Rough pasture.....	-
Bracken.....	0.3
Rushes.....	0.9
Moorland.....	-
Peatland.....	-
Mountain grass.....	1.3
Woodland.....	10.8
Cliffs/sand/mud.....	-
Built-up.....	11.6

NATIVE SPECIES

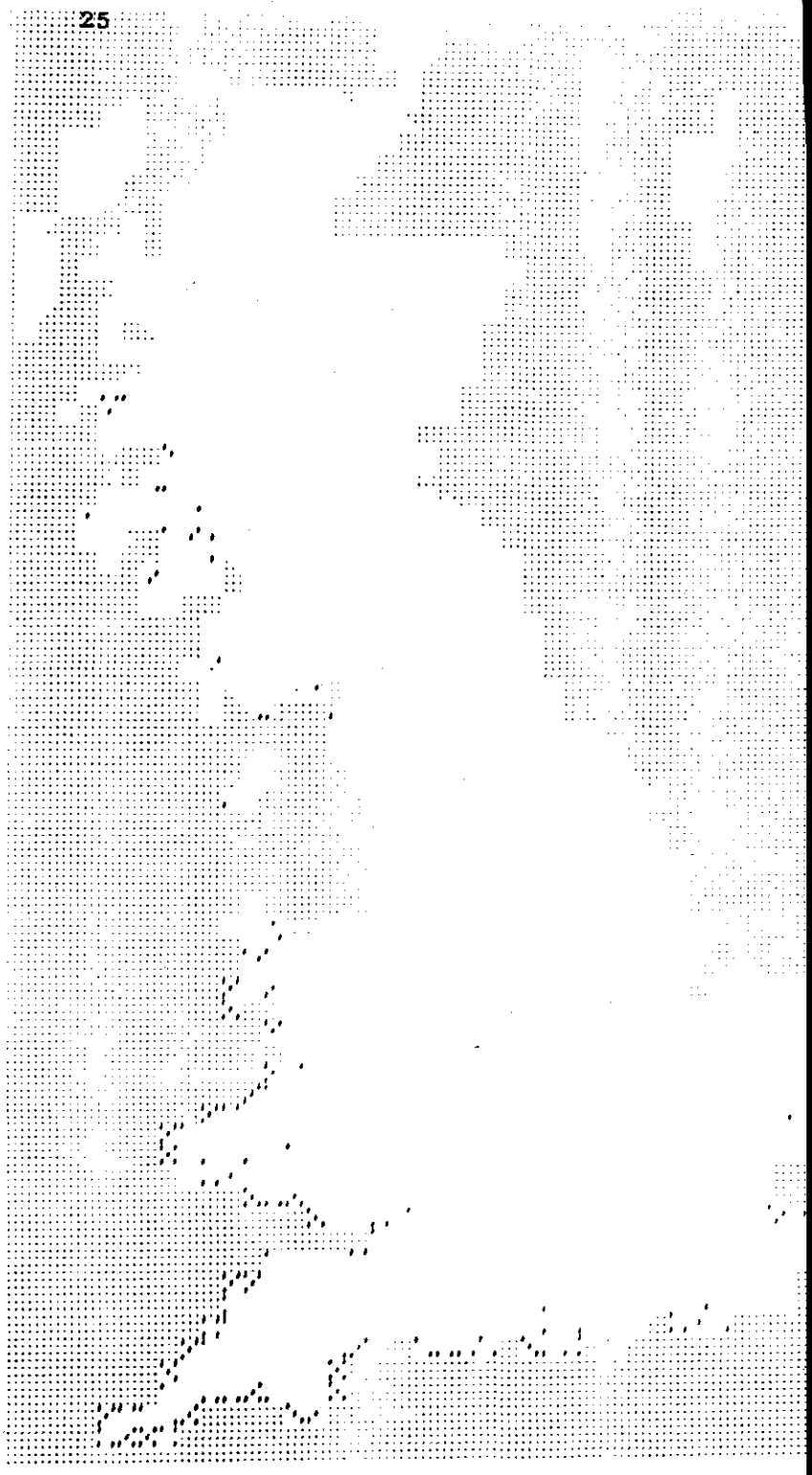
Percentage cover of major species

Perennial rye grass.....	20.0
Ling heather.....	0.1
Common bent.....	6.5
Purple moor grass.....	-
Yorkshire fog.....	6.4
White clover.....	3.0
Cocksfoot.....	4.0
Matgrass.....	-
Bracken.....	1.5
Crested dogstail.....	1.8
Italian rye grass.....	2.5
Timothy.....	3.1
Deer grass.....	-
Sheeps fescue.....	0.6
Creeping bent.....	3.4

LANDSCAPE

Barbed wire fences
Hedges managed
Hedges neglected
Hedges on banks
Hedgerow trees
Mature woodland
Gravel streams
Vernacular local
Slate roofs
Corrugated iron on roofs
Tracks
Farmhouse and farms

LAND CLASS SEVEN



TOPOGRAPHY

Mean max. altitude (m)	.....	96
Mean min. altitude (m)	.....	2
Altitude class (mean percentage area)	0- 76m.....	50
	77- 198m.....	45
	199- 488m.....	0
	489-1189m.....	-
Slope (°)	.....	13

CLIMATE

Mean min. temp. January	(°)..	2.8
Mean max. temp. July	(°)..	19.0
Mean soil deficit	(mm)..	5.6
Mean annual rainfall	(mm)..	9.8
Mean snowfall	(days)..	13.7
Duration bright sunshine	(hrs)..	6.2

SOILS

Mean pH	6.0
Mean loss on ignition (%)	12.4

Percentage of total area

Brown earths.....	48.7
Rendzinas.....	12.8
Gleys.....	10.3
Gleyed brown earths.....	7.7
Brown podsolic soils.....	5.1
Rankers.....	7.6
Calcareous brown earths.....	2.6
Peaty podsols.....	2.6
Podsols.....	2.6
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	0.7
Barley.....	7.2
Other Crops.....	0.8
Horticulture.....	0.1
Leys.....	10.3
Permanent grass.....	14.4
Rough pasture.....	6.8
Bracken.....	4.5
Rushes.....	1.3
Moorland.....	5.5
Peatland.....	-
Mountain grass.....	-
Woodland.....	3.2
Cliffs/sand/mud.....	13.6
Built-up.....	8.9

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	17.6
Ling heather.....	4.2
Common bent.....	3.1
Purple moor grass.....	0.6
Yorkshire fog.....	2.8
White clover.....	3.1
Cocksfoot.....	1.4
Matgrass.....	0.3
Bracken.....	1.3
Crested dogstail.....	0.8
Italian rye grass.....	4.0
Timothy.....	-
Deer grass.....	-
Sheeps fescue.....	4.6
Creeping bent.....	2.0

LANDSCAPE

Barbed wire fences
Hedges
Sheep
Rock outcrop
Rockstone
Vernacular (local)
Slate roofs
Tracks
Farmhouses

LAND CLASS EIGHT

TOPOGRAPHY

Mean max. altitude (m)	.....	34 (L)
Mean min. altitude (m)	.....	0
Altitude class (mean percentage area)	0- 76m.....	60
	77- 198m.....	26
	199- 488m.....	-
	489-1189m.....	-
Slope (°)	.....	3

CLIMATE

Mean min. temp. January	(°)..	2.0
Mean max. temp. July	(°)..	12.3
Mean soil deficit	(mm)..	8.1
Mean annual rainfall	(mm)..	8.5
Mean snowfall	(days)..	16.4
Duration bright sunshine	(hrs)..	6.2

SOILS

Mean pH	6.2
Mean loss on ignition (%)	12.4

Percentage of total area

Brown earths.....	45.0
Rendzinas.....	-
Gleys.....	50.6
Gleyed brown earths.....	-
Brown podsolic soils.....	-
Rankers.....	5.0
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	2.3
Barley.....	4.6
Other Crops.....	0.8
Horticulture.....	0.1
Leys.....	5.1
Permanent grass.....	11.8
Rough pasture.....	3.4
Bracken.....	1.0
Rushes.....	2.3
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	1.7
Cliffs/sand/mud.....	29.8
Built-up.....	28.2

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	19.0
Ling heather.....	-
Common bent.....	1.9
Purple moor grass.....	-
Yorkshire fog.....	1.3
White clover.....	1.9
Cocksfoot.....	1.6
Matgrass.....	-
Bracken.....	-
Crested dogstail.....	2.5
Italian rye grass.....	1.8
Timothy.....	3.4
Deer grass.....	-
Sheeps fescue.....	0.3
Creeping bent.....	3.8

LANDSCAPE

Barbed wire fences
Hedges
Mud bottom streams
Marginal vegetation
Sand/mud shores
Non-vernacular (non-local)
Pylons
Farmhouses
Barn/shippons (vernac.)

LAND CLASS NINE

TOPOGRAPHY

Mean max. altitude (m)	.....	115
Mean min. altitude (m)	.....	8
Altitude class	0- 76m.....	35
(mean	77- 198m.....	61
percentage	199- 488m.....	3
area)	489-1189m.....	-
Slope	(°)	2

CLIMATE

Mean min. temp. January	(°)..	0.7
Mean max. temp. July	(°)..	20.8
Mean soil deficit	(mm)..	9.8
Mean annual rainfall	(mm)..	7.2
Mean snowfall	(days)..	30.8
Duration bright sunshine	(hrs)..	5.3

SOILS

Mean pH	6.0
Mean loss on ignition (%)	7.7

Percentage of total area

Brown earths.....	35.0
Rendzinas.....	2.5
Gleys.....	27.5
Gleyed brown earths.....	15.0
Brown podsolic soils.....	2.5
Rankers.....	-
Calcareous brown earths.....	10.0
Peaty podsols.....	-
Podsols.....	7.5
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	6.5
Barley.....	17.5
Other Crops.....	4.2
Horticulture.....	0.7
Leys.....	30.2
Permanent grass.....	4.1
Rough pasture.....	0.8
Bracken.....	2.4
Rushes.....	-
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	7.9
Cliffs/sand/mud.....	-
Built-up.....	23.9

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	18.1
Ling heather.....	-
Common bent.....	4.8
Purple moor grass.....	-
Yorkshire fog.....	2.0
White clover.....	1.6
Cocksfoot.....	4.8
Matgrass.....	-
Bracken.....	2.1
Crested dogstail.....	1.5
Italian rye grass.....	0.4
Timothy.....	0.9
Deer grass.....	-
Sheeps fescue.....	0.1
Creeping bent.....	0.1

LANDSCAPE

Wood post and rail
Barbed wire
Complete hedges
Hedges and gaps
Hedgerow trees
Roadside trees
Detached houses later than 1960
Tile roofs
Tracks

LAND CLASS TEN

TOPOGRAPHY

Mean max. altitude (m)	.....	113
Mean min. altitude (m)	.....	77
Altitude class	0- 76m.....	36
(mean	77- 198m.....	57
percentage	199- 488m.....	6
area)	489-1189m.....	-
Slope	(°)	2

CLIMATE

Mean min. temp. January	(°)..	0.5
Mean max. temp. July	(°)..	20.3
Mean soil deficit	(mm)..	9.6
Mean annual rainfall	(mm)..	7.1
Mean snowfall	(days)..	31.5
Duration bright sunshine	(hrs)..	5.2

SOILS

Mean pH	5.7
Mean loss on ignition (%)	8.2

Percentage of total area

Brown earths.....	22.5
Rendzinas.....	-
Gleys.....	52.5
Gleyed brown earths.....	12.5
Brown podsolic soils.....	2.5
Fen peats.....	-
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	5.0
Peaty gleys.....	5.0
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	15.0
Barley.....	13.1
Other Crops.....	5.8
Horticulture.....	0.9
Leys.....	19.0
Permanent grass.....	15.2
Rough pasture.....	-
Bracken.....	1.2
Rushes.....	-
Moorland.....	4.3
Peatland.....	-
Mountain grass.....	-
Woodland.....	11.3
Cliffs/sand/mud.....	-
Built-up.....	9.8

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	14.7
Ling heather.....	2.8
Common bent.....	2.4
Purple moor grass.....	-
Yorkshire fog.....	3.5
White clover.....	3.9
Cocksfoot.....	0.9
Matgrass.....	-
Bracken.....	0.8
Crested dogstail.....	1.3
Italian rye grass.....	1.4
Timothy.....	2.0
Deer grass.....	-
Sheeps fescue.....	-
Creeping bent.....	1.6

LANDSCAPE

Complete hedges
Hedges and gaps
Hedgerow trees
Vernacular (local)
Slate roofs
Tile roofs
Farmhouses
Barn/Shippon (vernacular)

LAND CLASS ELEVEN

TOPOGRAPHY

Mean max. altitude (m)	.....	92
Mean min. altitude (m)	.....	65
Altitude class (mean percentage area)	0- 76m.....	60
	77- 198m.....	37
	199- 488m.....	4
	489-1189m.....	-
Slope (°)	.....	2

CLIMATE

Mean min. temp. January	(°)..	0.7
Mean max. temp. July	(°)..	21.3
Mean soil deficit	(mm)..	11.6
Mean annual rainfall	(mm)..	6.4
Mean snowfall	(days)..	29.6
Duration bright sunshine	(hrs)..	5.6

SOILS

Mean pH	6.6
Mean loss on ignition (%)	6.8

Percentage of total area

Brown earths.....	35.0
Rendzinas.....	-
Gleys.....	47.5
Gleyed brown earths.....	7.5
Brown podsolic soils.....	-
Rankers.....	2.5
Calcareous brown earths.....	7.5
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	26.7
Barley.....	17.1
Other Crops.....	6.5
Horticulture.....	6.2
Leys.....	18.3
Permanent grass.....	4.0
Rough pasture.....	-
Bracken.....	-
Rushes.....	-
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	1.7
Cliffs/sand/mud.....	-
Built-up.....	19.5

NATIVE SPECIES

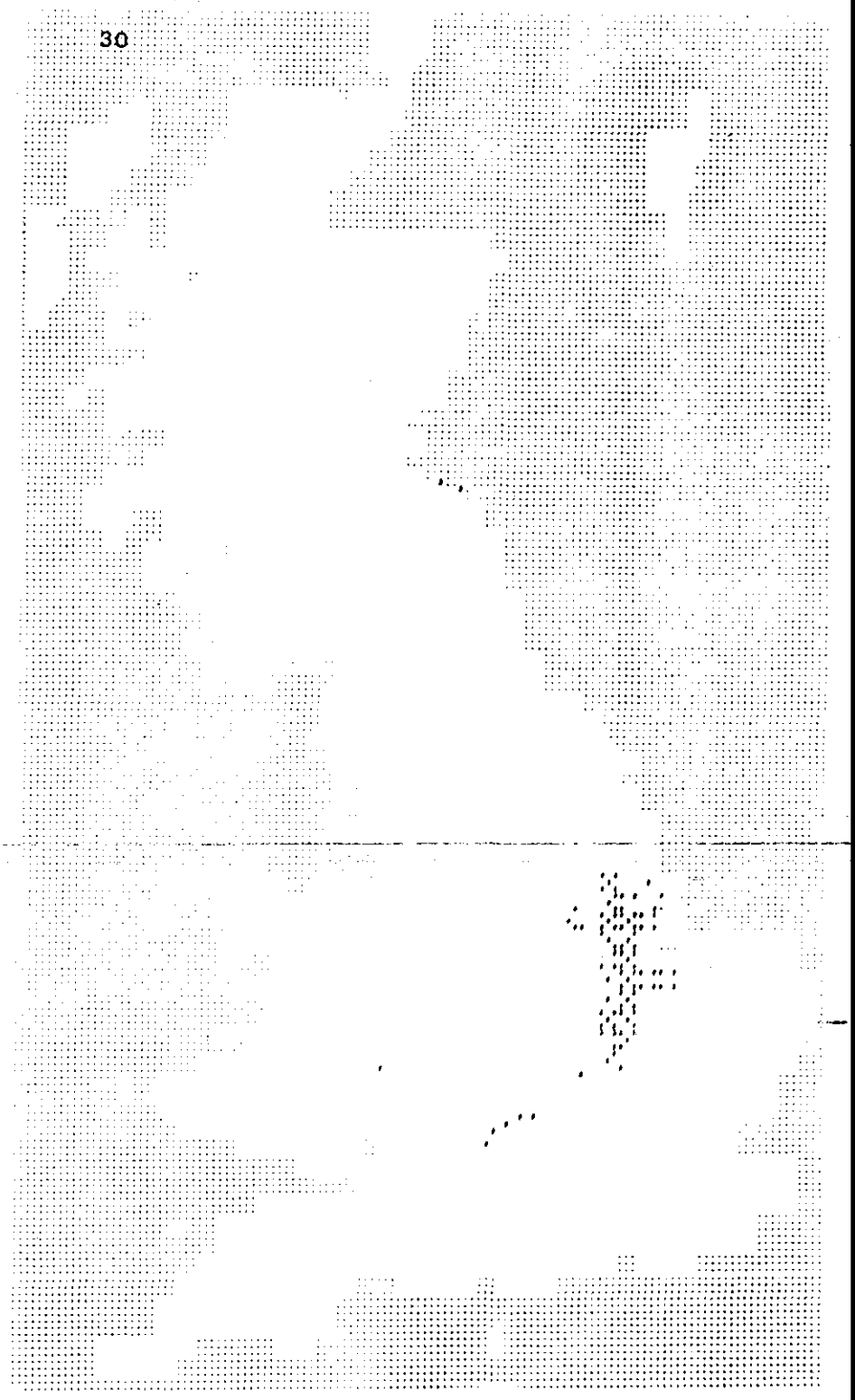
Percentage cover of major species

Perennial rye grass.....	5.8
Ling heather.....	-
Common bent.....	2.5
Purple moor grass.....	-
Yorkshire fog.....	1.6
White clover.....	3.0
Cocksfoot.....	1.9
Matgrass.....	-
Bracken.....	-
Crested dogstail.....	-
Italian rye grass.....	1.0
Timothy.....	1.2
Deer grass.....	-
Sheeps fescue.....	1.3
Creeping bent.....	0.3

LANDSCAPE

Barbed wire
Complete hedges
Hedges and gaps
Hedgerow trees
Roadside trees
Vernacular (local)
Detached houses 1800-1900
Tile roofs
Footpaths
Tracks

LAND CLASS TWELVE



TOPOGRAPHY

Mean max. altitude (m)	.....	33
Mean min. altitude (m)	.....	23
Altitude class (mean percentage area)	0- 76m.....	100
	77- 198m.....	-
	199- 488m.....	-
	489-1189m.....	-
Slope	(°)	0

CLIMATE

Mean min. temp. January	(°)..	0.6
Mean max. temp. July	(°)..	11.7
Mean soil deficit	(mm)..	12.5
Mean annual rainfall	(mm)..	5.9
Mean snowfall	(days)..	30.0
Duration bright sunshine	(hrs)..	5.9

SOILS

Mean pH	7.2
Mean loss on ignition (%)	7.3

Percentage of total area

Brown earths.....	30.8
Rendzinas.....	-
Gleys.....	51.3
Gleyed brown earths.....	7.7
Brown podsolic soils.....	-
Rankers.....	2.6
Calcareous brown earths.....	7.7
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	35.3
Barley.....	14.7
Other Crops.....	8.0
Horticulture.....	9.6
Leys.....	10.4
Permanent grass.....	1.1
Rough pasture.....	-
Bracken.....	-
Rushes.....	-
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	4.9
Cliffs/sand/mud.....	-
Built-up.....	24.9

NATIVE SPECIES

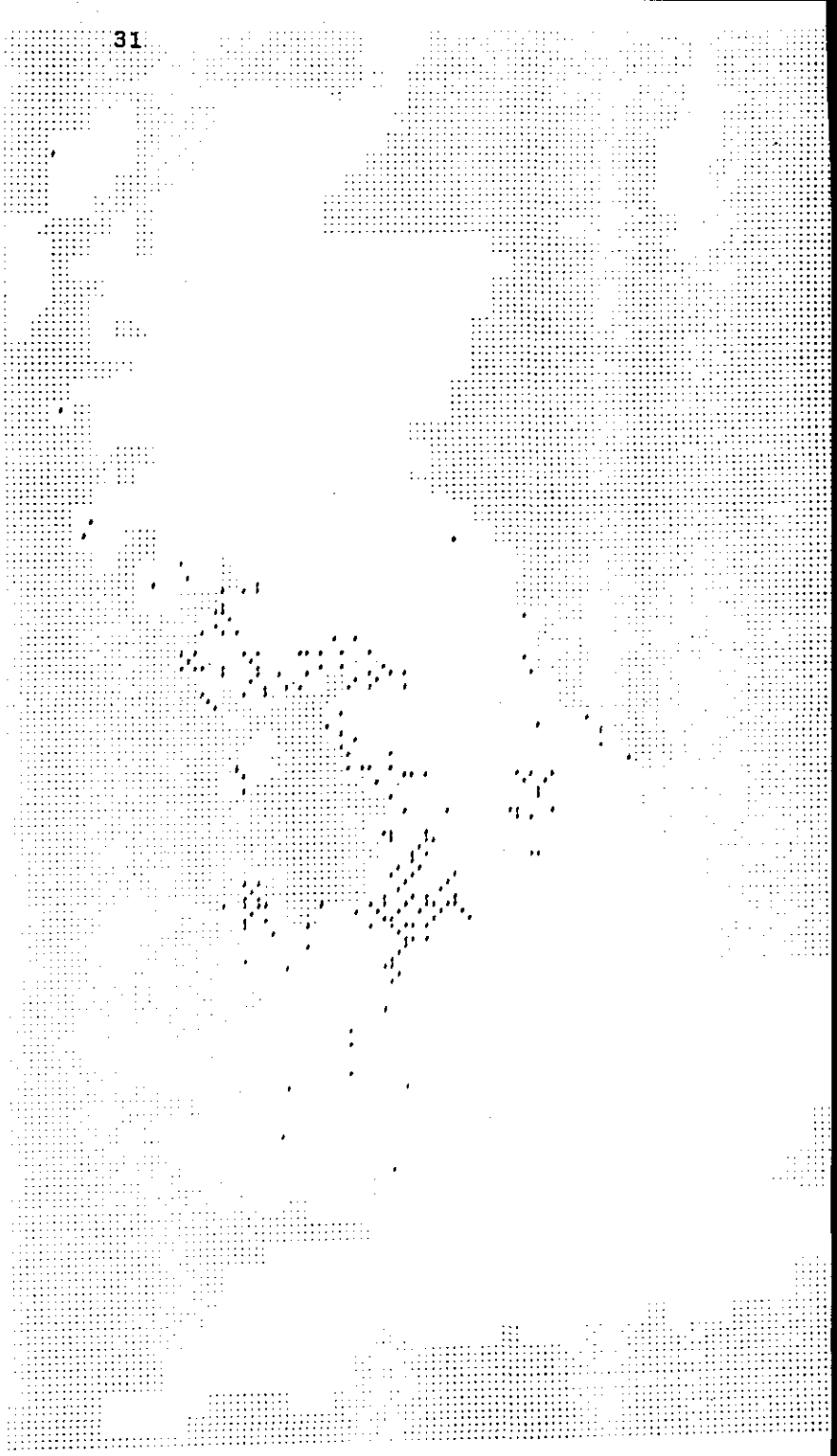
Percentage cover of major species

Perennial rye grass.....	3.5
Ling heather.....	-
Common bent.....	0.5
Purple moor grass.....	0.3
Yorkshire fog.....	0.5
White clover.....	1.9
Cocksfoot.....	0.4
Matgrass.....	0.3
Bracken.....	-
Crested dogstail.....	-
Italian rye grass.....	4.3
Timothy.....	0.8
Deer grass.....	-
Sheeps fescue.....	0.1
Creeping bent.....	0.8

LANDSCAPE

Neglected hedges
Houses with tiled roofs
Footpaths
Tracks
Barns/shippon (non-vernacular)

LAND CLASS THIRTEEN



TOPOGRAPHY

Mean max. altitude (m)	.....	33
Mean min. altitude (m)	.....	23
Altitude class (mean percentage area)	0- 76m.....	78
	77- 198m.....	17
	199- 488m.....	2
	489-1189m.....	-
Slope (°)	.....	0

CLIMATE

Mean min. temp. January	(°)..	1.3
Mean max. temp. July	(°)..	19.1
Mean soil deficit	(mm)..	6.7
Mean annual rainfall	(mm)..	9.2
Mean snowfall	(days)..	23.2
Duration bright sunshine	(hrs)..	5.4

SOILS

Mean pH	5.4
Mean loss on ignition (%)	12.2

Percentage of total area

Brown earths.....	30.0
Rendzinas.....	-
Gleys.....	42.5
Gleyed brown earths.....	2.5
Brown podsolic soils.....	10.0
Rankers.....	2.5
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	5.0
Peaty gleys.....	7.5
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	5.5
Barley.....	8.2
Other Crops.....	4.7
Horticulture.....	0.2
Leys.....	13.7
Permanent grass.....	18.0
Rough pasture.....	4.1
Bracken.....	8.1
Rushes.....	2.4
Moorland.....	3.0
Peatland.....	0.6
Mountain grass.....	0.2
Woodland.....	4.8
Cliffs/sand/mud.....	-
Built-up.....	24.9

NATIVE SPECIES

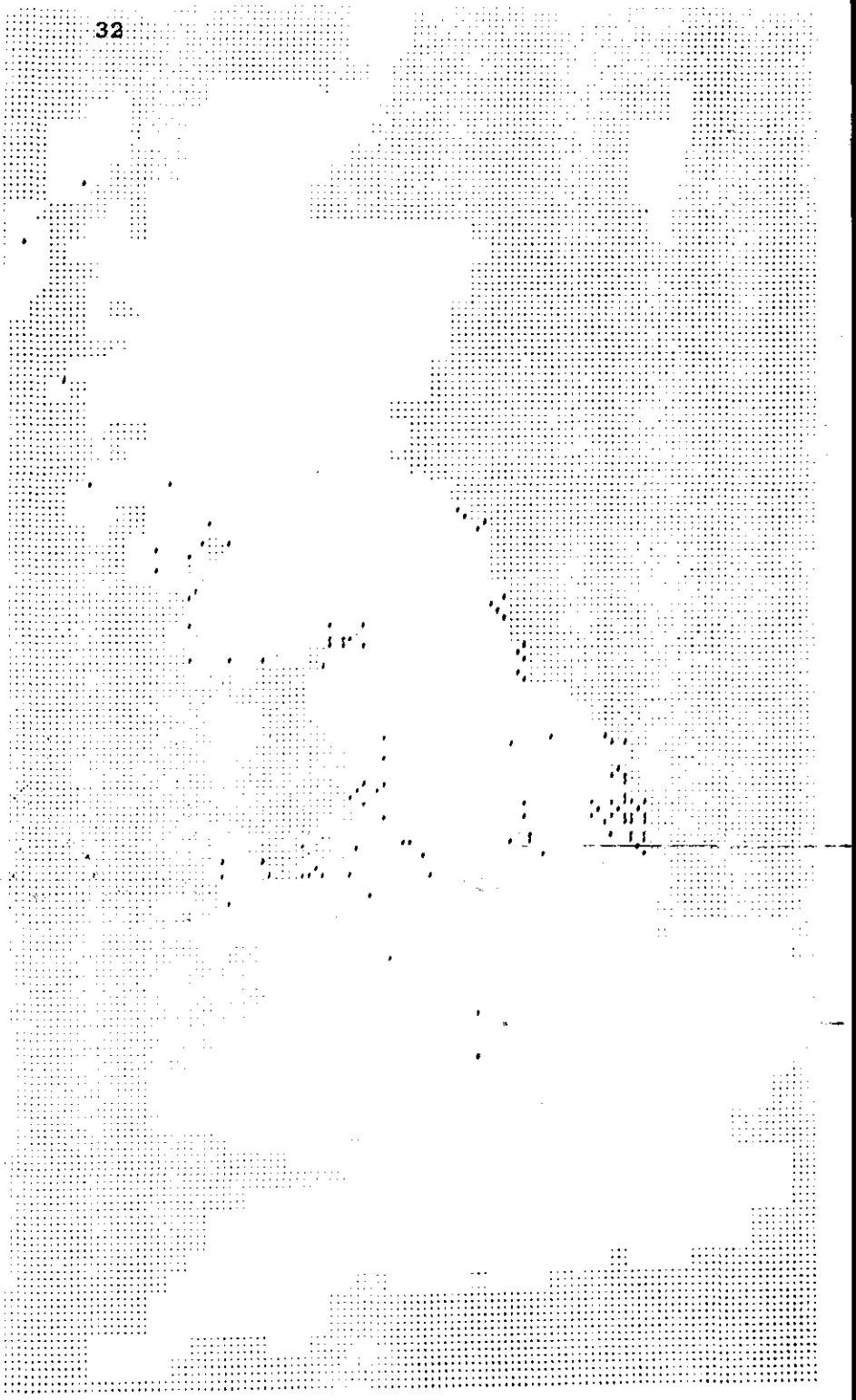
Percentage cover of major species

Perennial rye grass.....	27.1
Ling heather.....	0.5
Common bent.....	2.9
Purple moor grass.....	-
Yorkshire fog.....	4.0
White clover.....	2.7
Cocksfoot.....	2.6
Matgrass.....	-
Bracken.....	6.8
Crested dogstail.....	1.1
Italian rye grass.....	0.1
Timothy.....	2.3
Deer grass.....	-
Sheeps fescue.....	0.3
Creeping bent.....	1.8

LANDSCAPE

Barbed wire fences
Managed hedges
Mature woodlands
1940-1960 houses
Slate roofs

LAND CLASS FOURTEEN



TOPOGRAPHY

Mean max. altitude (m)	.....	52
Mean min. altitude (m)	.....	12
Altitude class (mean percentage area)	0- 76m.....	75
	77- 198m.....	27
	199- 488m.....	-
	489-1189m.....	-
Slope (°)	.....	3

CLIMATE

Mean min. temp. January	(°)..	1.3
Mean max. temp. July	(°)..	19.1
Mean soil deficit	(mm)..	9.9
Mean annual rainfall	(mm)..	7.3
Mean snowfall	(days)..	24.4
Duration bright sunshine	(hrs)..	5.4

SOILS

Mean pH	6.4
Mean loss on ignition (%)	6.1

Percentage of total area

Brown earths.....	27.5
Rendzinas.....	-
Gleys.....	27.5
Gleyed brown earths.....	27.5
Brown podsolic soils.....	2.5
Rankers.....	-
Calcareous brown earths.....	7.5
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	4.3
Barley.....	13.9
Other Crops.....	6.8
Horticulture.....	-
Leys.....	14.3
Permanent grass.....	1.9
Rough pasture.....	3.3
Bracken.....	0.1
Rushes.....	0.0
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	0.8
Cliffs/sand/mud.....	10.5
Built-up.....	35.3

NATIVE SPECIES

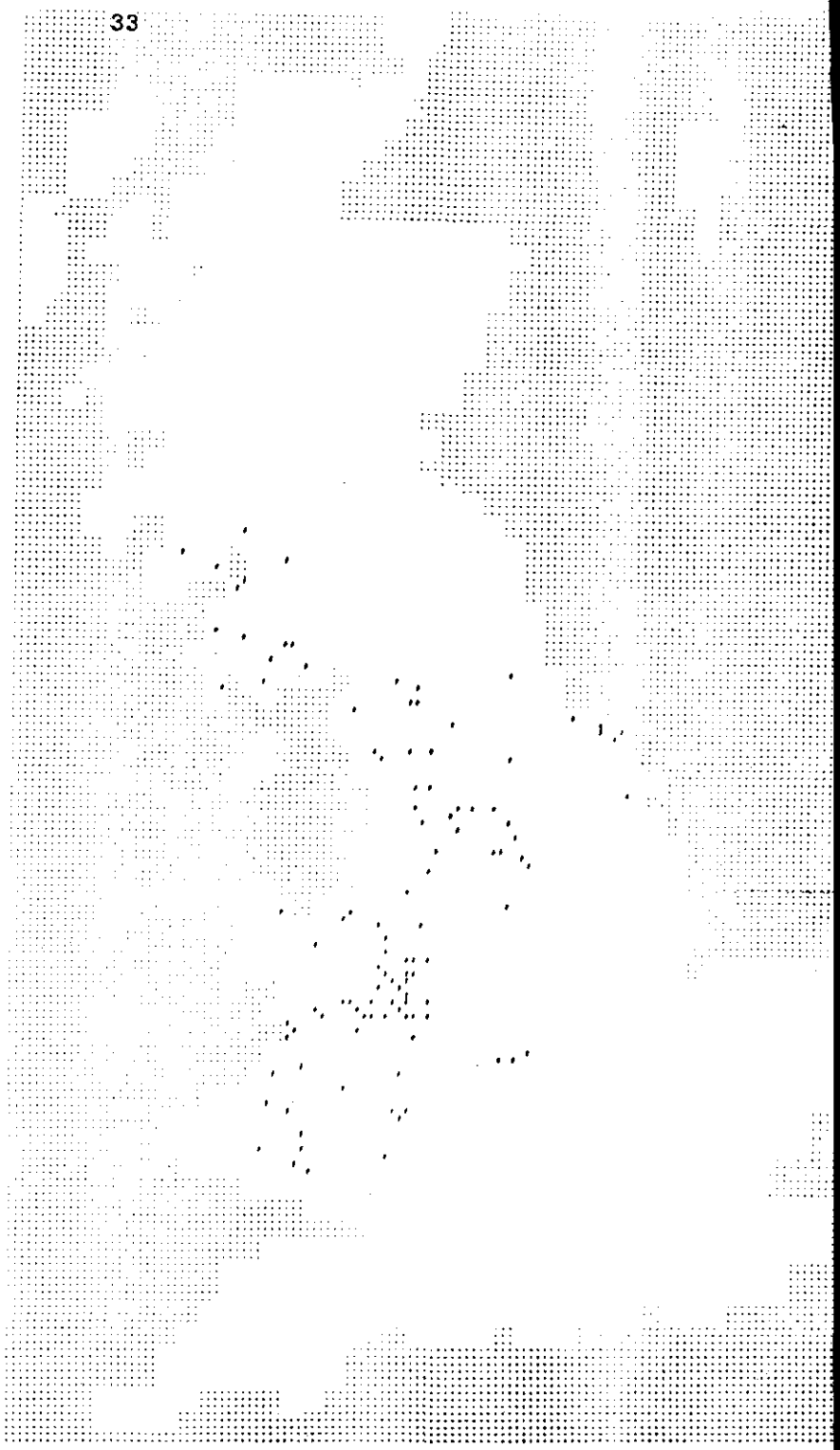
Percentage cover of major species

Perennial rye grass.....	26.6
Ling heather.....	-
Common bent.....	0.3
Purple moor grass.....	-
Yorkshire fog.....	3.0
White clover.....	2.6
Cocksfoot.....	0.4
Matgrass.....	-
Bracken.....	-
Crested dogstail.....	-
Italian rye grass.....	1.1
Timothy.....	1.1
Deer grass.....	-
Sheeps fescue.....	0.1
Creeping bent.....	3.6

LANDSCAPE

Barbed wire fences
Neglected hedges
Sand/mud shore
Slate roofed houses
Footpaths

LAND CLASS FIFTEEN



TOPOGRAPHY

Mean max. altitude (m)	.....	171
Mean min. altitude (m)	.....	85
Altitude class (mean percentage area)	0- 76m.....	3
	77- 198m.....	93
	199- 488m.....	4
	489-1189m.....	-
Slope (°)	.....	5

CLIMATE

Mean min. temp. January	(°)..	1.3
Mean max. temp. July	(°)..	19.8
Mean soil deficit	(mm)..	6.9
Mean annual rainfall	(mm)..	10.1
Mean snowfall	(days)..	27.5
Duration bright sunshine	(hrs)..	5.2

SOILS

Mean pH	5.7
Mean loss on ignition (%)	9.0

Percentage of total area

Brown earths.....	35.0
Rendzinas.....	2.5
Gleys.....	35.0
Gleyed brown earths.....	7.5
Brown podsolic soils.....	12.5
Rankers.....	5.0
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	2.5
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	3.6
Barley.....	14.1
Other Crops.....	5.6
Horticulture.....	4.1
Leys.....	13.1
Permanent grass.....	23.0
Rough pasture.....	5.9
Bracken.....	2.7
Rushes.....	0.9
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	11.2
Cliffs/sand/mud.....	-
Built-up.....	13.2

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	19.5
Ling heather.....	-
Common bent.....	7.6
Purple moor grass.....	0.3
Yorkshire fog.....	2.9
White clover.....	2.8
Cocksfoot.....	-
Matgrass.....	1.9
Bracken.....	1.9
Crested dogstail.....	1.1
Italian rye grass.....	-
Timothy.....	2.1
Deer grass.....	-
Sheeps fescue.....	2.4
Creeping bent.....	0.5

LANDSCAPE

Barbed wire fences
Managed hedges
Neglected hedges
Hedgerow trees
Copses under 5 ha.
Streams with marginal vegetation
Detached houses with slate roofs
Farmhouses
Barn/Shippon vernacular

LAND CLASS SIXTEEN

TOPOGRAPHY

Mean max. altitude (m)	.....	102
Mean min. altitude (m)	.....	62
Altitude class	0- 76m.....	59
(mean	77- 198m.....	35
percentage	199- 488m.....	6
area)	489-1189m.....	-
Slope	(°)	2

CLIMATE

Mean min. temp. January	(°)..	0.9
Mean max. temp. July	(°)..	19.4
Mean soil deficit	(mm)..	6.1
Mean annual rainfall	(mm)..	10.4
Mean snowfall	(days)..	25.2
Duration bright sunshine	(hrs)..	5.2

SOILS

Mean pH	5.7
Mean loss on ignition (%)	14.3

Percentage of total area

Brown earths.....	35.0
Rendzinas.....	-
Gleys.....	37.5
Gleyed brown earths.....	7.5
Brown podsolic soils.....	5.0
Rankers.....	7.5
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	5.0

LAND USE

Percentage of total area

Wheat.....	13.7
Barley.....	4.9
Other Crops.....	1.5
Horticulture.....	1.8
Leys.....	18.8
Permanent grass.....	28.6
Rough pasture.....	3.9
Bracken.....	1.0
Rushes.....	0.3
Moorland.....	3.4
Peatland.....	1.7
Mountain grass.....	2.6
Woodland.....	3.6
Cliffs/sand/mud.....	1.5
Built-up.....	10.0

NATIVE SPECIES

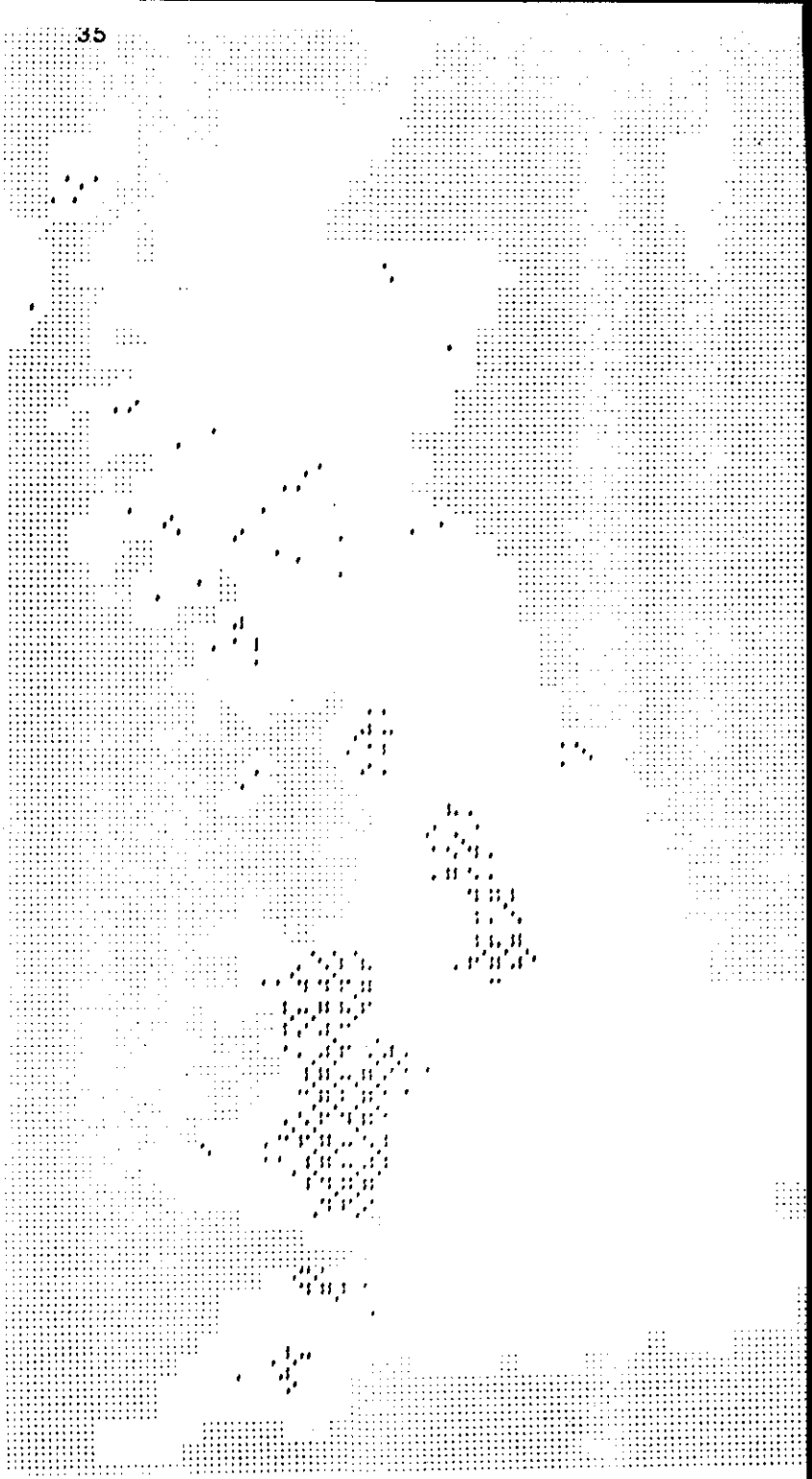
Percentage cover of major species

Perennial rye grass.....	25.0
Ling heather.....	1.0
Common bent.....	1.6
Purple moor grass.....	1.8
Yorkshire fog.....	4.1
White clover.....	3.5
Cocksfoot.....	3.9
Matgrass.....	2.5
Bracken.....	2.0
Crested dogstail.....	0.6
Italian rye grass.....	0.4
Timothy.....	2.8
Deer grass.....	-
Sheeps fescue.....	2.1
Creeping bent.....	0.1

LANDSCAPE

Barbed wire fences
Complete hedges
Neglected hedges
Streams with mud bottoms
Vernacular local
Slate roofs
Farmhouses
Barn/Shippon (vernacular)

LAND CLASS SEVENTEEN



TOPOGRAPHY

Mean max. altitude (m)	.....	408
Mean min. altitude (m)	.....	276
Altitude class (mean percentage area)	0- 76m.....	-
	77- 198m.....	4
	199- 488m.....	88
	489-1189m.....	8
Slope (°)	.....	8

CLIMATE

Mean min. temp. January	(°)..	1.6
Mean max. temp. July	(°)..	20.0
Mean soil deficit	(mm)..	4.6
Mean annual rainfall	(mm)..	14.8
Mean snowfall	(days)..	28.7
Duration bright sunshine	(hrs)..	5.2

SOILS

Mean pH	4.9
Mean loss on ignition (%)	19.7

Percentage of total area

Brown earths.....	52.5
Rendzinas.....	-
Gleys.....	5.0
Gleyed brown earths.....	2.5
Brown podsolic soils.....	15.0
Rankers.....	2.5
Calcareous brown earths.....	-
Peaty podsols.....	2.5
Podsols.....	12.5
Peaty gleys.....	7.5
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	0.5
Barley.....	0.8
Other Crops.....	3.2
Horticulture.....	-
Leys.....	21.5
Permanent grass.....	35.0
Rough pasture.....	9.5
Bracken.....	1.8
Rushes.....	3.1
Moorland.....	4.2
Peatland.....	-
Mountain grass.....	2.0
Woodland.....	15.2
Cliffs/sand/mud.....	-
Built-up.....	2.8

NATIVE SPECIES

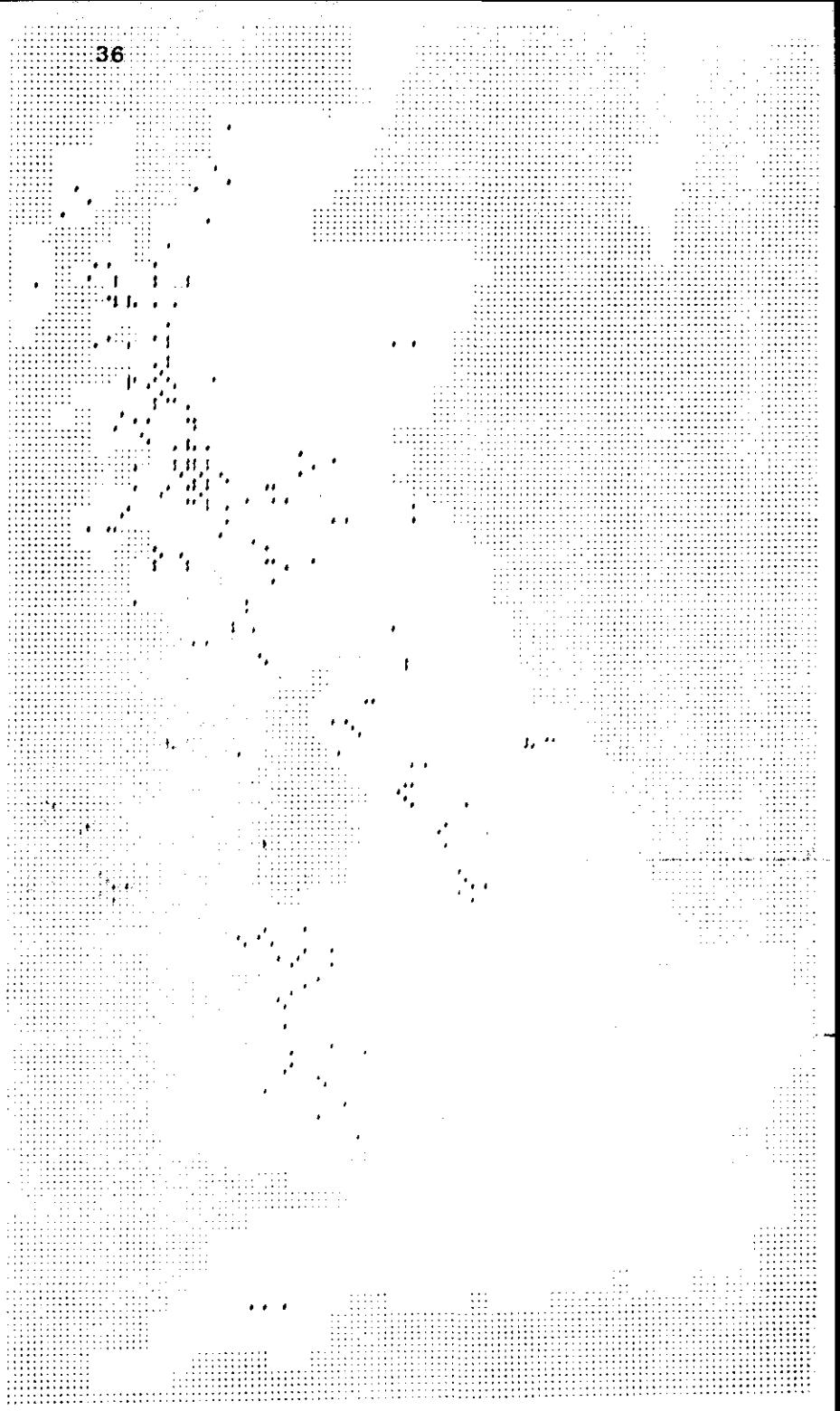
Percentage cover of major species

Perennial rye grass.....	14.5
Ling heather.....	2.3
Common bent.....	15.1
Purple moor grass.....	1.1
Yorkshire fog.....	4.1
White clover.....	3.5
Cocksfoot.....	3.9
Matgrass.....	2.5
Bracken.....	2.0
Crested dogstail.....	7.8
Italian rye grass.....	-
Timothy.....	0.8
Deer grass.....	-
Sheeps fescue.....	1.8
Creeping bent.....	0.8

LANDSCAPE

Barbed wire fences
Sand/gravel bottom streams

LAND CLASS EIGHTEEN



TOPOGRAPHY

Mean max. altitude (m)	.....	383
Mean min. altitude (m)	.....	168
Altitude class	0- 76m.....	2
(mean	77- 198m.....	20
percentage	199- 488m.....	69
area)	489-1189m.....	6
Slope	(°)	13

CLIMATE

Mean min. temp. January	(°)..	1.4
Mean max. temp. July	(°)..	18.6
Mean soil deficit	(mm)..	3.4
Mean annual rainfall	(mm)..	18.0
Mean snowfall	(days)..	27.0
Duration bright sunshine	(hrs)..	5.0

SOILS

Mean pH	4.0
Mean loss on ignition (%)	34.1

Percentage of total area

Brown earths.....	10.0
Rendzinas.....	-
Gleys.....	12.5
Gleyed brown earths.....	-
Brown podsolic soils.....	20.0
Rankers.....	15.0
Calcareous brown earths.....	-
Peaty podsols.....	12.5
Podsols.....	7.5
Peaty gleys.....	7.5
Peats.....	15.0

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	-
Other Crops.....	0.0
Horticulture.....	-
Leys.....	2.7
Permanent grass.....	5.5
Rough pasture.....	7.5
Bracken.....	5.7
Rushes.....	8.3
Moorland.....	19.7
Peatland.....	15.1
Mountain grass.....	13.1
Woodland.....	5.7
Cliffs/sand/mud.....	3.2
Built-up.....	5.0

NATIVE SPECIES

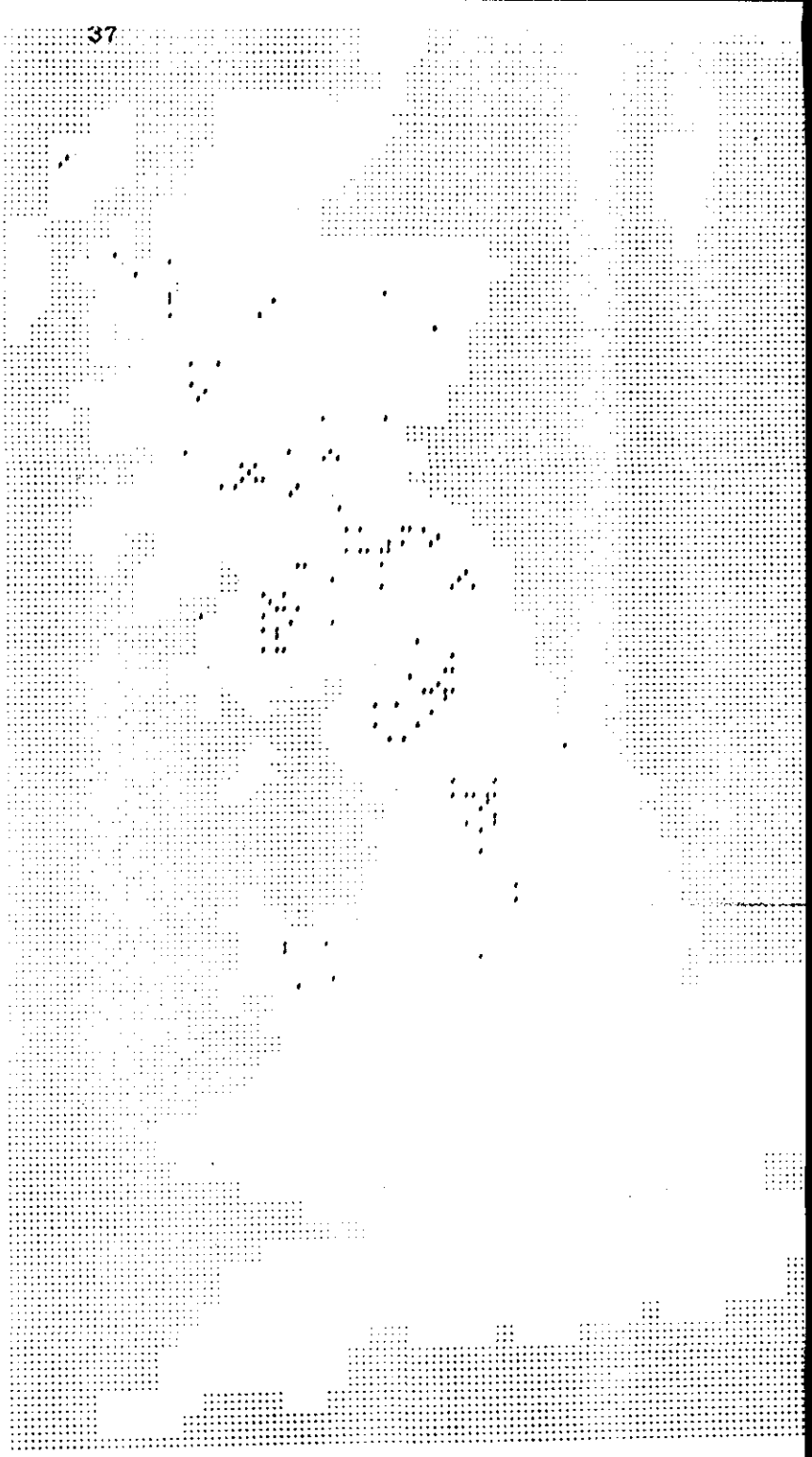
Percentage cover of major species

Perennial rye grass.....	2.4
Ling heather.....	17.0
Common bent.....	3.4
Purple moor grass.....	1.3
Yorkshire fog.....	-
White clover.....	0.1
Cocksfoot.....	1.4
Matgrass.....	10.8
Bracken.....	0.6
Crested dogstail.....	0.4
Italian rye grass.....	-
Timothy.....	-
Deer grass.....	2.5
Sheeps fescue.....	4.0
Creeping bent.....	-

LANDSCAPE

Stones/rocks
Boulders
Sand/Gravel
Bottom stream

LAND CLASS NINETEEN



TOPOGRAPHY

Mean max. altitude (m)	.....	390
Mean min. altitude (m)	.....	224
Altitude class 0- 76m	.....	3
(mean 77- 198m	.....	8
percentage 199- 488m	.....	87
area) 489-1189m	.....	2
Slope (°)	.....	9

CLIMATE

Mean min. temp. January	(°)..	0.3
Mean max. temp. July	(°)..	19.1
Mean soil deficit	(mm)..	4.4
Mean annual rainfall	(mm)..	14.3
Mean snowfall	(days)..	38.1
Duration bright sunshine	(hrs)..	4.7

SOILS

Mean pH	4.2
Mean loss on ignition (%)	40.0

Percentage of total area

Brown earths.....	17.5
Rendzinas.....	-
Gleys.....	7.5
Gleyed brown earths.....	7.5
Brown podsolic soils.....	7.5
Rankers.....	12.5
Calcareous brown earths.....	-
Peaty podsols.....	10.0
Podsols.....	17.5
Peaty gleys.....	2.5
Peats.....	17.5

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	0.4
Other Crops.....	2.0
Horticulture.....	-
Leys.....	7.7
Permanent grass.....	11.8
Rough pasture.....	4.8
Bracken.....	2.3
Rushes.....	2.0
Moorland.....	27.1
Peatland.....	6.0
Mountain grass.....	6.5
Woodland.....	25.6
Cliffs/sand/mud.....	-
Built-up.....	2.9

NATIVE SPECIES

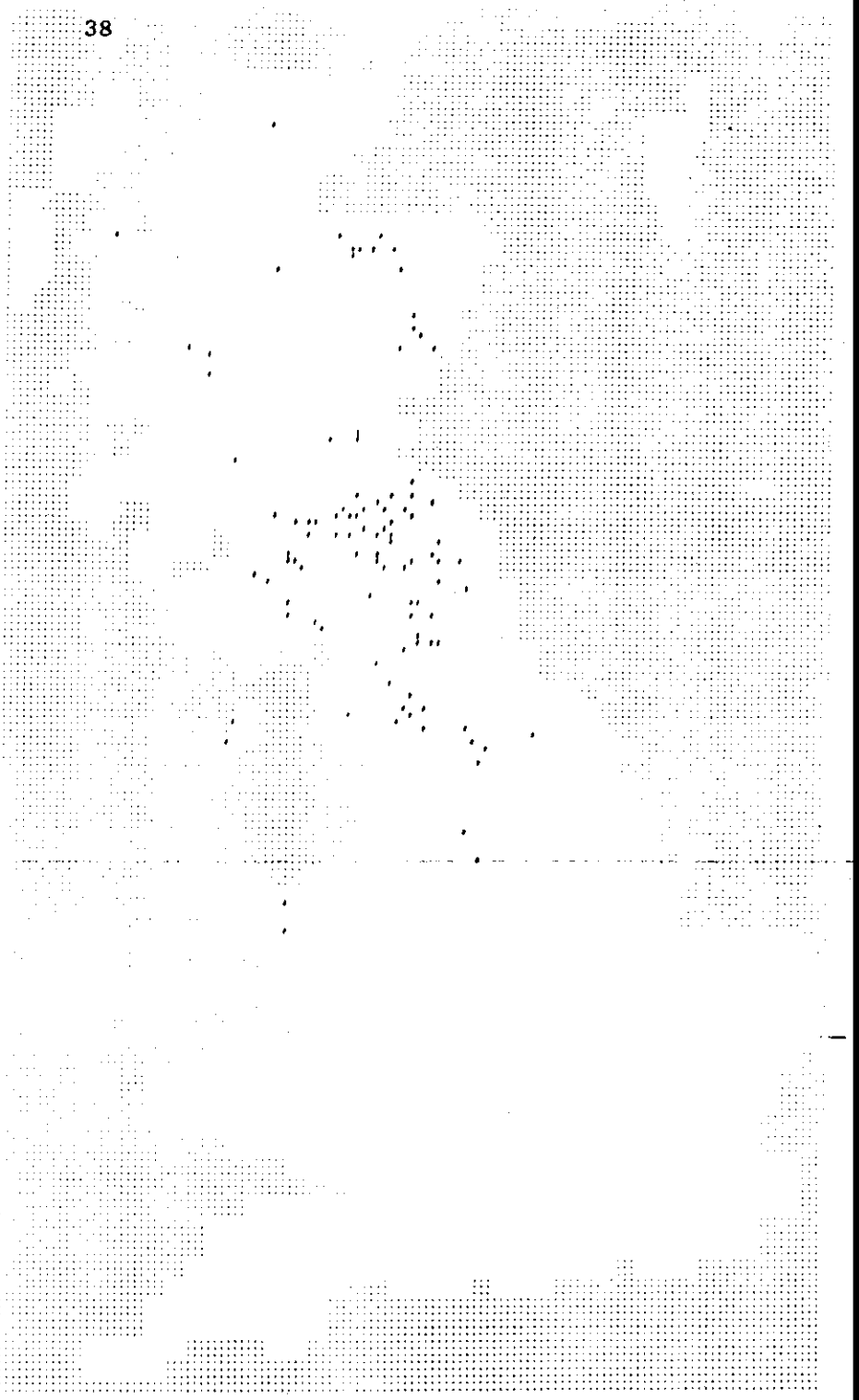
Percentage cover of major species

Perennial rye grass.....	10.8
Ling heather.....	25.5
Common bent.....	3.0
Purple moor grass.....	1.4
Yorkshire fog.....	2.0
White clover.....	1.1
Cocksfoot.....	-
Matgrass.....	4.0
Bracken.....	4.0
Crested dogstail.....	1.8
Italian rye grass.....	-
Timothy.....	0.3
Deer grass.....	-
Sheeps fescue.....	2.6
Creeping bent.....	0.8

LANDSCAPE

Stones/rocks
Boulders

LAND CLASS TWENTY



TOPOGRAPHY

Mean max. altitude (m)	.....	329
Mean min. altitude (m)	.....	202
Altitude class	0- 76m.....	3
(mean	77- 198m.....	14
percentage	199- 488m.....	83
area)	489-1189m.....	-
Slope	(°)	7

CLIMATE

Mean min. temp. January	(°)..	0.0
Mean max. temp. July	(°)..	19.4
Mean soil deficit	(mm)..	5.1
Mean annual rainfall	(mm)..	11.4
Mean snowfall	(days)..	43.3
Duration bright sunshine	(hrs)..	4.7

SOILS

Mean pH	4.9
Mean loss on ignition (%)	21.5

Percentage of total area

Brown earths.....	30.0
Rendzinas.....	
Gleys.....	35.0
Gleyed brown earths.....	2.5
Brown podsolic soils.....	5.0
Rankers.....	2.5
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	7.5
Peaty gleys.....	10.0
Peats.....	7.5

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	3.1
Other Crops.....	1.2
Horticulture.....	-
Leys.....	15.3
Permanent grass.....	25.3
Rough pasture.....	4.3
Bracken.....	3.0
Rushes.....	4.7
Moorland.....	2.8
Peatland.....	10.1
Mountain grass.....	19.9
Woodland.....	3.0
Cliffs/sand/mud.....	-
Built-up.....	3.5

NATIVE SPECIES

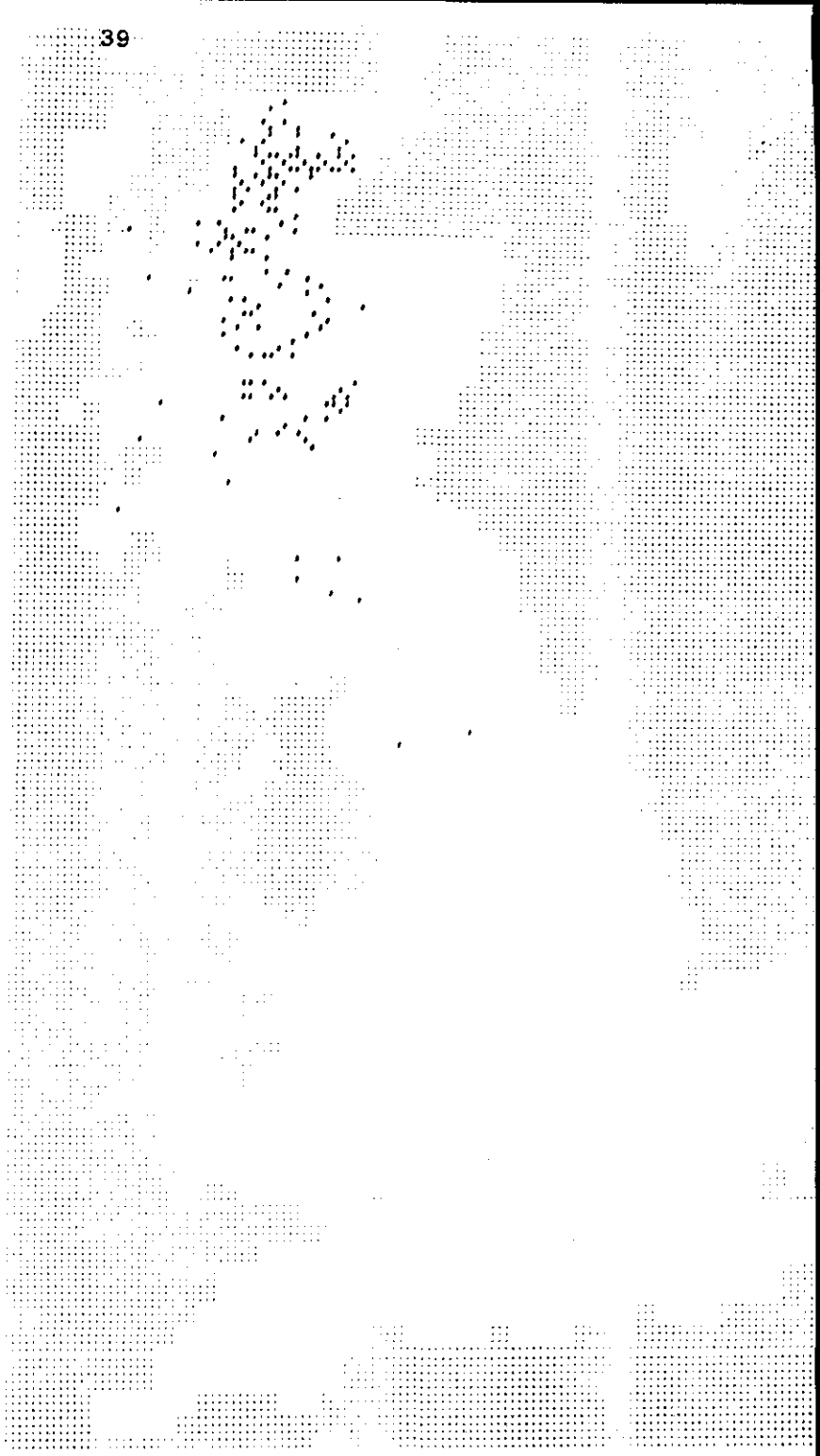
Percentage cover of major species

Perennial rye grass.....	17.6
Ling heather.....	0.9
Common bent.....	4.5
Purple moor grass.....	10.4
Yorkshire fog.....	2.5
White clover.....	4.1
Cocksfoot.....	1.6
Matgrass.....	7.5
Bracken.....	1.3
Crested dogstail.....	2.0
Italian rye grass.....	2.5
Timothy.....	0.8
Deer grass.....	0.5
Sheeps fescue.....	2.4
Creeping bent.....	-

LANDSCAPE

Dry Walls
Barbed wire fences
Fenced woodland
Stones/rocks
Boulders
Sand/Gravel bottom streams
Vernacular local

LAND CLASS TWENTY-ONE



TOPOGRAPHY

Mean max. altitude (m)		396
Mean min. altitude (m)		244
Altitude class (mean percentage area)	0- 76m	-
	77- 198m	12
	199- 488m	85
	489-1189m	2
Slope	(°)	8

CLIMATE

Mean min. temp. January	(°)	0.0
Mean max. temp. July	(°)	17.8
Mean soil deficit	(mm)	3.4
Mean annual rainfall	(mm)	16.7
Mean snowfall	(days)	54.3
Duration bright sunshine	(hrs)	4.1

SOILS

Mean pH	4.3
Mean loss on ignition (%)	70.2

Percentage of total area

Brown earths	7.5
Rendzinas	-
Gleys	2.5
Gleyed brown earths	-
Brown podsolic soils	5.0
Rankers	2.5
Calcareous brown earths	-
Peaty podsols	5.0
Podsols	10.0
Peaty gleys	20.0
Peats	40.0

LAND USE

Percentage of total area

Wheat	-
Barley	-
Other Crops	-
Horticulture	-
Leys	-
Permanent grass	-
Rough pasture	-
Bracken	1.9
Rushes	2.8
Moorland	41.4
Peatland	27.3
Mountain grass	3.7
Woodland	19.6
Cliffs/sand/mud	1.1
Built-up	1.0

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass	-
Ling heather	35.6
Common bent	1.0
Purple moor grass	1.9
Yorkshire fog	0.1
White clover	0.1
Cocksfoot	-
Matgrass	1.5
Bracken	1.3
Crested dogstail	-
Italian rye grass	-
Timothy	-
Deer grass	10.8
Sheeps fescue	1.8
Creeping bent	0.1

LANDSCAPE

Rock outcrops
Stones/rocks
Boulders
Slow streams
Fast streams
Sand/gravel bottoms
Surface water

LAND CLASS TWENTY-TWO

TOPOGRAPHY

Mean max. altitude (m)	.....	430
Mean min. altitude (m)	.....	298
Altitude class (mean percentage area)	0- 76m.....	-
	77- 198m.....	2
	199- 488m.....	87
	489-1189m.....	9
Slope (°)	.....	8

CLIMATE

Mean min. temp. January	(°)..	-0.2
Mean max. temp. July	(°)..	19.0
Mean soil deficit	(mm)..	5.0
Mean annual rainfall	(mm)..	12.8
Mean snowfall	(days)..	51.6
Duration bright sunshine	(hrs)..	4.4

SOILS

Mean pH	4.5
Mean loss on ignition (%)	70.2

Percentage of total area

Brown earths.....	10.0
Rendzinas.....	-
Gleys.....	12.5
Gleyed brown earths.....	2.5
Brown podsolic soils.....	7.5
Rankers.....	2.5
Calcareous brown earths.....	-
Peaty podsols.....	15.0
Podsols.....	-
Peaty gleys.....	32.5
Peats.....	15.0

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	2.1
Other Crops.....	1.4
Horticulture.....	-
Leys.....	0.9
Permanent grass.....	6.5
Rough pasture.....	1.6
Bracken.....	1.1
Rushes.....	3.3
Moorland.....	25.6
Peatland.....	12.1
Mountain grass.....	-
Woodland.....	34.9
Cliffs/sand/mud.....	1.1
Built-up.....	1.6

NATIVE SPECIES

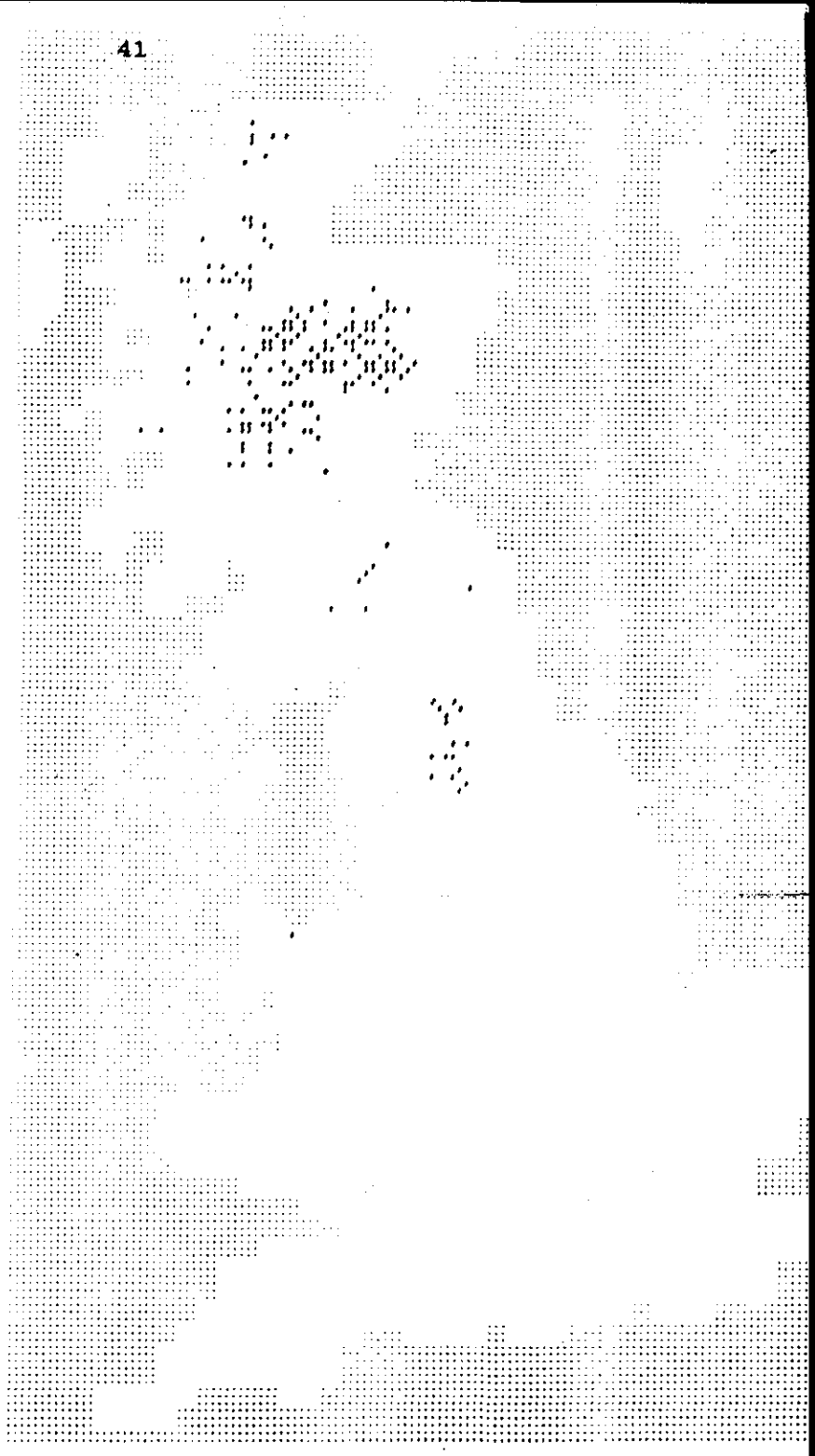
Percentage cover of major species

Perennial rye grass.....	2.8
Ling heather.....	28.9
Common bent.....	0.3
Purple moor grass.....	3.9
Yorkshire fog.....	0.8
White clover.....	3.3
Cocksfoot.....	0.1
Matgrass.....	0.3
Bracken.....	1.8
Crested dogstail.....	0.5
Italian rye grass.....	-
Timothy.....	0.3
Deer grass.....	0.3
Sheeps fescue.....	1.1
Creeping bent.....	-

LANDSCAPE

Woodlands over 5 ha.
Stones/rocks
Lines of shrubs

LAND CLASS TWENTY-THREE



TOPOGRAPHY

Mean max. altitude (m)	.....	747
Mean min. altitude (m)	.....	512
Altitude class (mean percentage area)	0- 76m.....	-
	77- 198m.....	-
	199- 488m.....	16
	489-1189m.....	84
Slope	(°)	12

CLIMATE

Mean min. temp. January	(°)..	-0.5
Mean max. temp. July	(°)..	18.9
Mean soil deficit	(mm)..	4.6
Mean annual rainfall	(mm)..	16.2
Mean snowfall	(days)..	56.8
Duration bright sunshine	(hrs)..	4.3

SOILS

Mean pH	4.3
Mean loss on ignition (%)	63.7

Percentage of total area

Brown earths.....	-
Rendzinas.....	-
Gleys.....	-
Gleyed brown earths.....	-
Brown podsolic soils.....	5.0
Rankers.....	15.0
Calcareous brown earths.....	-
Peaty podsols.....	17.5
Podsols.....	15.0
Peaty gleys.....	10.0
Peats.....	35.0

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	-
Other Crops.....	-
Horticulture.....	-
Leys.....	-
Permanent grass.....	-
Rough pasture.....	0.7
Bracken.....	-
Rushes.....	1.2
Moorland.....	53.5
Peatland.....	18.8
Mountain grass.....	24.3
Woodland.....	-
Cliffs/sand/mud.....	0.4
Built-up.....	0.2

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	-
Ling heather.....	27.9
Common bent.....	0.6
Purple moor grass.....	1.1
Yorkshire fog.....	-
White clover.....	0.3
Cocksfoot.....	-
Matgrass.....	8.1
Bracken.....	-
Crested dogstail.....	-
Italian rye grass.....	-
Timothy.....	-
Deer grass.....	8.1
Sheeps fescue.....	0.4
Creeping bent.....	-

LANDSCAPE

Rock outcrops
Stones/rocks
Boulders
Fast streams with peat & s

LAND CLASS TWENTY-FOUR

TOPOGRAPHY

Mean max. altitude (m)	.....	611
Mean min. altitude (m)	.....	267
Altitude class 0- 76m	.....	1
(mean 77- 198m	.....	12
percentage 199- 488m	.....	56
area) 489-1189m	.....	31
Slope (°)	.....	18

CLIMATE

Mean min. temp. January	(°)..	0.1
Mean max. temp. July	(°)..	18.0
Mean soil deficit	(mm)..	2.5
Mean annual rainfall	(mm)..	22.8
Mean snowfall	(days)..	51.4
Duration bright sunshine	(hrs)..	4.1

SOILS

Mean pH	4.5
Mean loss on ignition (%)	58.3

Percentage of total area

Brown earths.....	5.0
Rendzinas.....	-
Gleys.....	7.5
Gleyed brown earths.....	-
Brown podsolic soils.....	2.5
Rankers.....	37.5
Calcareous brown earths.....	-
Peaty podsols.....	17.5
Podsols.....	7.5
Peaty gleys.....	12.5
Peats.....	30.0

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	-
Other Crops.....	-
Horticulture.....	-
Leys.....	-
Permanent grass.....	-
Rough pasture.....	2.9
Bracken.....	3.7
Rushes.....	1.6
Moorland.....	10.5
Peatland.....	45.5
Mountain grass.....	15.7
Woodland.....	8.6
Cliffs/sand/mud.....	9.9
Built-up.....	0.6

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	-
Ling heather.....	12.5
Common bent.....	1.0
Purple moor grass.....	38.8
Yorkshire fog.....	0.1
White clover.....	0.8
Cocksfoot.....	-
Matgrass.....	6.9
Bracken.....	4.1
Crested dogstail.....	-
Italian rye grass.....	-
Timothy.....	-
Deer grass.....	8.3
Sheeps fescue.....	1.9
Creeping bent.....	-

LANDSCAPE

Rock outcrops
Scree
Rocks/stones
Boulders
Fast streams
Slow streams
Seepages

LAND CLASS TWENTY-FIVE

TOPOGRAPHY

Mean max. altitude (m)	.....	144
Mean min. altitude (m)	.....	88
Altitude class (mean percentage area)	0- 76m.....	42
	77- 198m.....	30
	199- 488m.....	28
	489-1189m.....	-
Slope (°)	.....	3

CLIMATE

Mean min. temp. January	(°)..	0.3
Mean max. temp. July	(°)..	18.3
Mean soil deficit	(mm)..	8.0
Mean annual rainfall	(mm)..	8.8
Mean snowfall	(days)..	40.4
Duration bright sunshine	(hrs)..	4.8

SOILS

Mean pH	6.1
Mean loss on ignition (%)	6.5

Percentage of total area

Brown earths.....	38.5
Rendzinas.....	-
Gleys.....	33.3
Gleyed brown earths.....	20.5
Brown podsolic soils.....	2.6
Rankers.....	5.1
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	-
Peats.....	-

LAND USE

Percentage of total area

Wheat.....	0.3
Barley.....	31.3
Other Crops.....	10.5
Horticulture.....	2.5
Leys.....	32.4
Permanent grass.....	5.5
Rough pasture.....	5.1
Bracken.....	-
Rushes.....	1.3
Moorland.....	-
Peatland.....	-
Mountain grass.....	-
Woodland.....	2.3
Cliffs/sand/mud.....	1.8
Built-up.....	6.4

NATIVE SPECIES

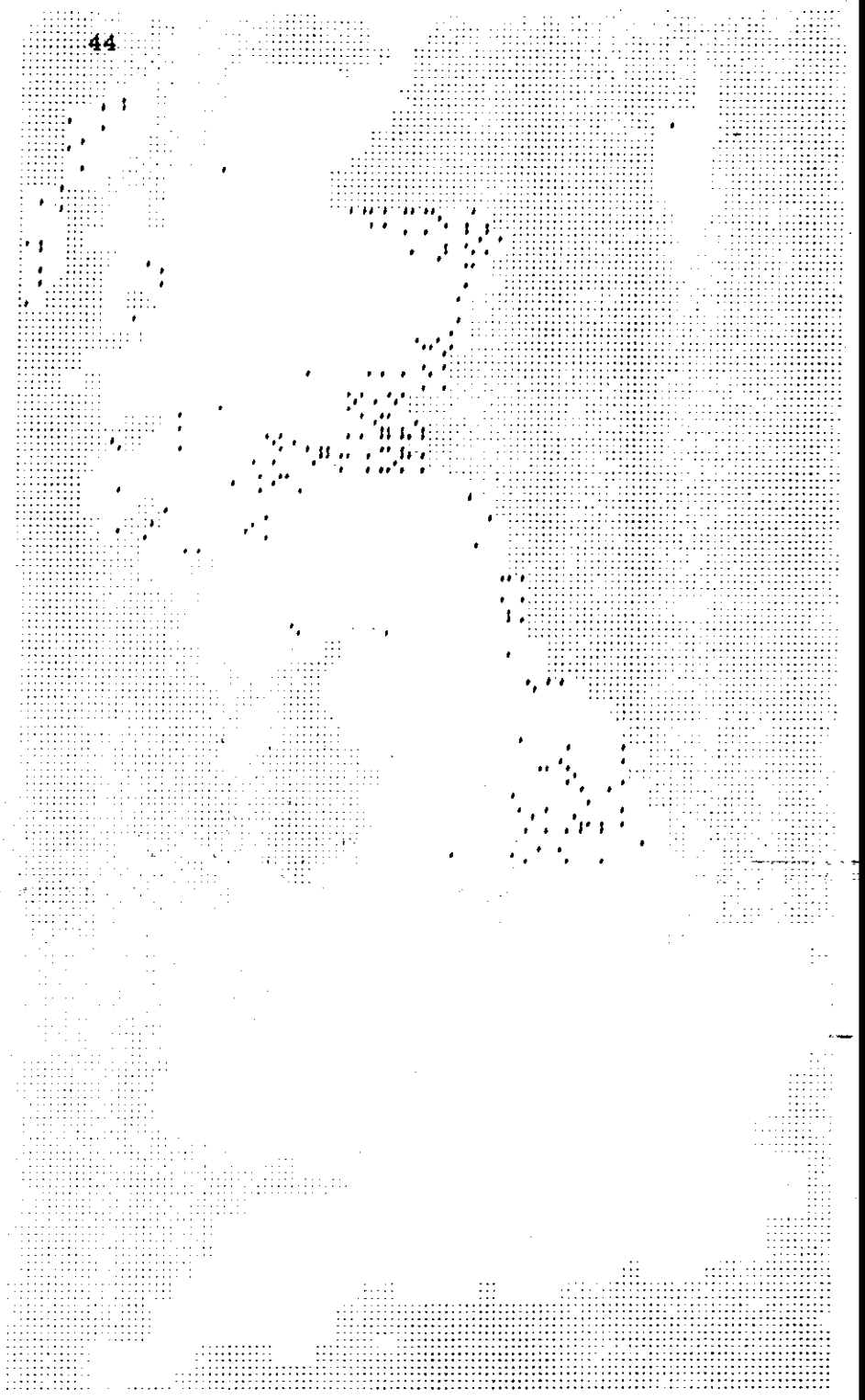
Percentage cover of major species

Perennial rye grass.....	20.3
Ling heather.....	-
Common bent.....	6.0
Purple moor grass.....	-
Yorkshire fog.....	3.1
White clover.....	4.6
Cocksfoot.....	1.0
Matgrass.....	-
Bracken.....	-
Crested dogstail.....	1.0
Italian rye grass.....	2.0
Timothy.....	2.4
Deer grass.....	-
Sheeps fescue.....	-
Creeping bent.....	2.3

LANDSCAPE

Wood post and rail
Barbed wire fences
Ditches
Vernacular (local) houses
Non vernacular (non-loca
Slate roofs

LAND CLASS TWENTY-SIX



TOPOGRAPHY

Mean max. altitude (m)	.....	93
Mean min. altitude (m)	.....	41
Altitude class	0- 76m.....	74
(mean	77- 198m.....	23
percentage	199- 488m.....	3
area)	489-1189m.....	-
Slope	(°)	3

CLIMATE

Mean min. temp. January	(°)..	0.6
Mean max. temp. July	(°)..	18.8
Mean soil deficit	(mm)..	7.3
Mean annual rainfall	(mm)..	9.4
Mean snowfall	(days)..	32.9
Duration bright sunshine	(hrs)..	5.1

SOILS

Mean pH	5.9
Mean loss on ignition (%)	10.9

Percentage of total area

Brown earths.....	38.5
Rendzinas.....	-
Clays.....	30.8
Gleyed brown earths.....	10.3
Brown podsolic soils.....	10.3
Rankers.....	5.2
Calcareous brown earths.....	-
Peaty podsols.....	-
Podsols.....	-
Peaty gleys.....	2.6
Peats.....	2.6

LAND USE

Percentage of total area

Wheat.....	0.4
Barley.....	14.3
Other Crops.....	4.4
Horticulture.....	-
Leys.....	24.3
Permanent grass.....	17.4
Rough pasture.....	2.1
Bracken.....	0.1
Rushes.....	1.5
Moorland.....	7.1
Peatland.....	-
Mountain grass.....	-
Woodland.....	7.1
Cliffs/sand/mud.....	0.8
Built-up.....	19.8

NATIVE SPECIES

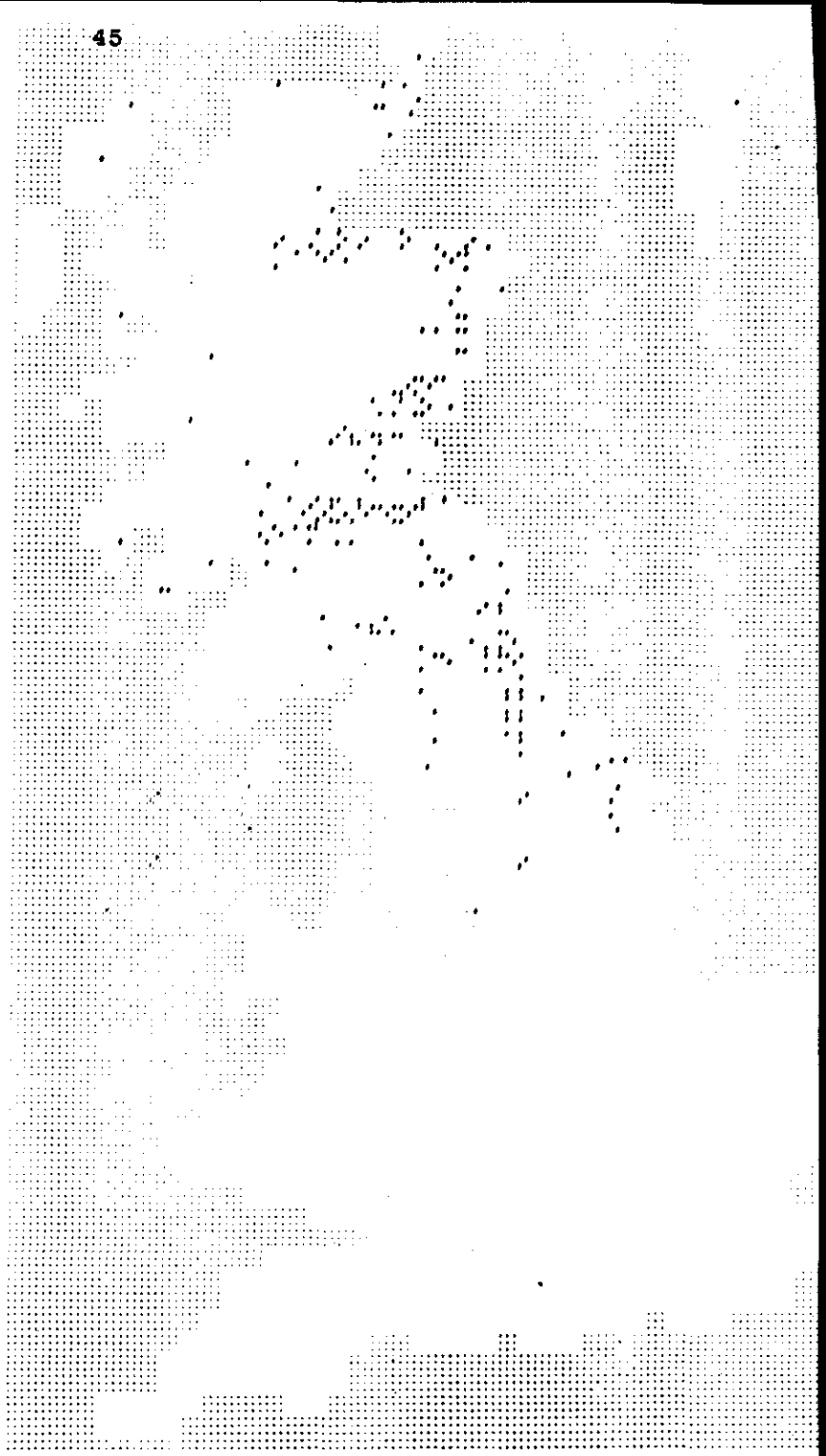
Percentage cover of major species

Perennial rye grass.....	16.4
Ling heather.....	1.8
Common bent.....	4.3
Purple moor grass.....	0.8
Yorkshire fog.....	3.0
White clover.....	5.0
Cocksfoot.....	0.8
Matgrass.....	-
Bracken.....	-
Crested dogstail.....	2.4
Italian rye grass.....	0.8
Timothy.....	1.3
Deer grass.....	0.1
Sheeps fescue.....	0.6
Creeping bent.....	1.9

LANDSCAPE

Barbed wire
Neglected hedge
Roadside trees
Streams (mire bottom)
Vernacular (local)
Non-vernacular (non-local)
Detached houses
Slate roofs
Tile roofs
Tracks
Farmhouses

LAND CLASS TWENTY-SEVEN



TOPOGRAPHY

Mean max. altitude (m)	.....	148
Mean min. altitude (m)	.....	91
Altitude class (mean percentage area)	0- 76m.....	14
	77- 198m.....	76
	199- 488m.....	8
	489-1189m.....	-
Slope (°)	.....	5

CLIMATE

Mean min. temp. January	(°)..	0.5
Mean max. temp. July	(°)..	10.5
Mean soil deficit	(mm)..	10
Mean annual rainfall	(mm)..	8.80
Mean snowfall	(days)..	45
Duration bright sunshine	(hrs)..	4.7

SOILS

Mean pH	5.78
Mean loss on ignition (%)	9.4

Percentage of total area

Brown earths.....	55.0
Rendzinas.....	
Gleys.....	22.5
Gleyed brown earths.....	5.0
Brown podsolic soils.....	
Rankers.....	5.0
Calcareous brown earths.....	
Peaty podsols.....	
Podsols.....	2.5
Peaty gleys.....	
Peats.....	

LAND USE

Percentage of total area

Wheat.....	2.3
Barley.....	22.7
Other Crops.....	0.6
Horticulture.....	0.4
Leys.....	18.3
Permanent grass.....	24.8
Rough pasture.....	4.3
Bracken.....	-
Rushes.....	2.7
Moorland.....	2.4
Peatland.....	-
Mountain grass.....	-
Woodland.....	11.4
Cliffs/sand/mud.....	1.2
Built-up.....	7.8

NATIVE SPECIES

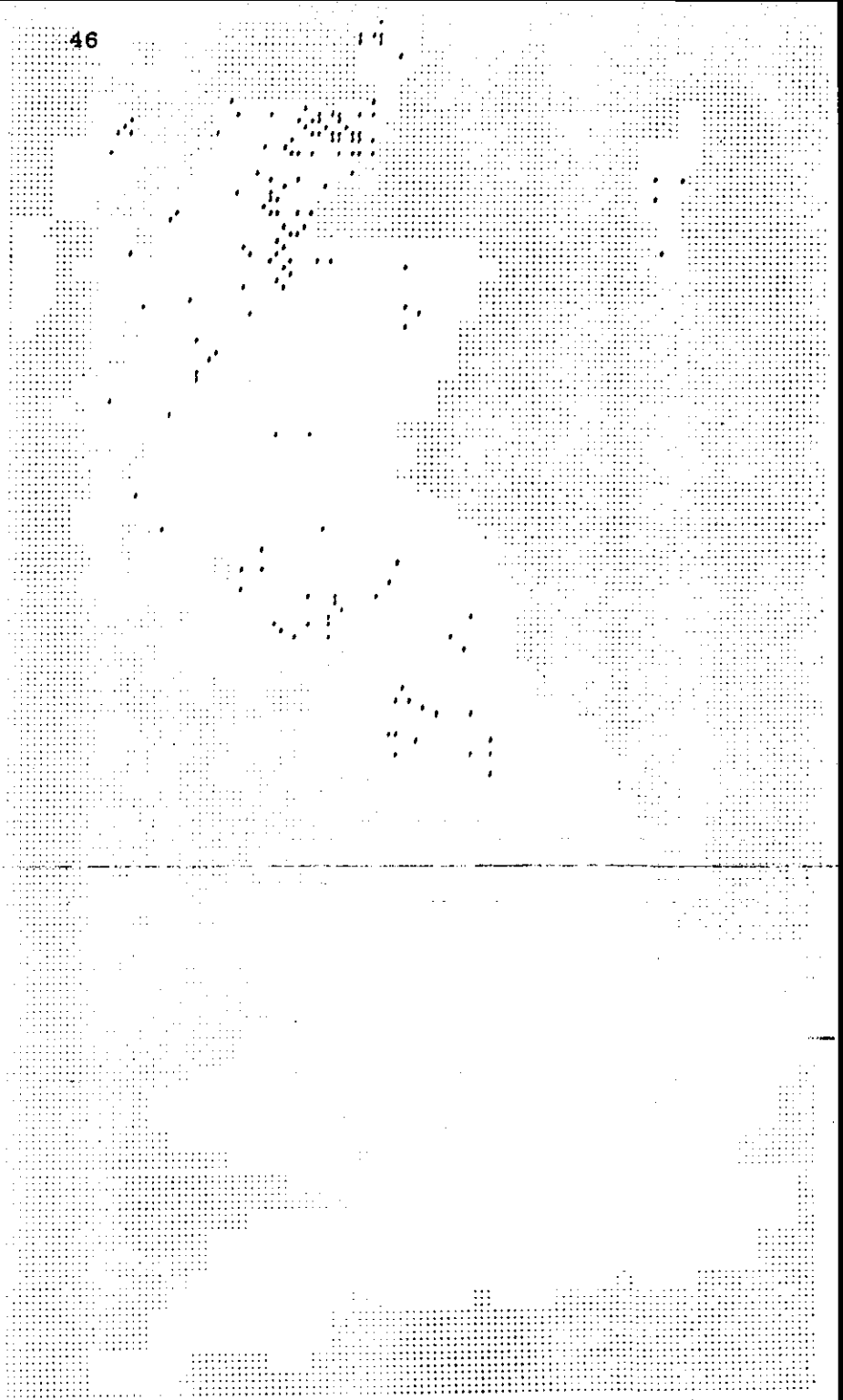
Percentage cover of major species

Perennial rye grass.....	19.5
Ling heather.....	-
Common bent.....	7.6
Purple moor grass.....	0.2
Yorkshire fog.....	2.9
White clover.....	2.0
Cocksfoot.....	2.6
Matgrass.....	-
Bracken.....	1.9
Crested dogstail.....	1.1
Italian rye grass.....	-
Timothy.....	2.1
Deer grass.....	-
Sheeps fescue.....	2.4
Creeping bent.....	0.5

LANDSCAPE

Wood post and rail
Barbed wire
Vernacular (local)
Slate roofs

LAND CLASS TWENTY-EIGHT



TOPOGRAPHY

Mean max. altitude (m)	.....	161
Mean min. altitude (m)	.....	99
Altitude class 0- 76m	.....	23
(mean 77- 198m	.....	66
percentage 199- 488m	.....	11
area) 489-1189m	.....	-
Slope (°)	.....	4

CLIMATE

Mean min. temp. January	(°) ..	0.2
Mean max. temp. July	(°) ..	17.9
Mean soil deficit	(mm) ..	5.5
Mean annual rainfall	(mm) ..	10.5
Mean snowfall	(days) ..	45.3
Duration bright sunshine	(hrs) ..	4.3

SOILS

Mean pH	4.6
Mean loss on ignition (%)	31.7

Percentage of total area

Brown earths	22.5
Rendzinas	-
Gleys	37.5
Gleyed brown earths	-
Brown podsolic soils	5.0
Rankers	2.5
Calcareous brown earths	-
Peaty podsols	5.0
Podsols	5.0
Peaty gleys	2.5
Peats	20.0

LAND USE

Percentage of total area

Wheat	-
Barley	2.0
Other Crops	0.6
Horticulture	-
Leys	10.1
Permanent grass	20.9
Rough pasture	10.2
Bracken	1.0
Rushes	2.0
Moorland	3.7
Peatland	23.4
Mountain grass	5.4
Woodland	9.4
Cliffs/sand/mud	-
Built-up	7.6

NATIVE SPECIES

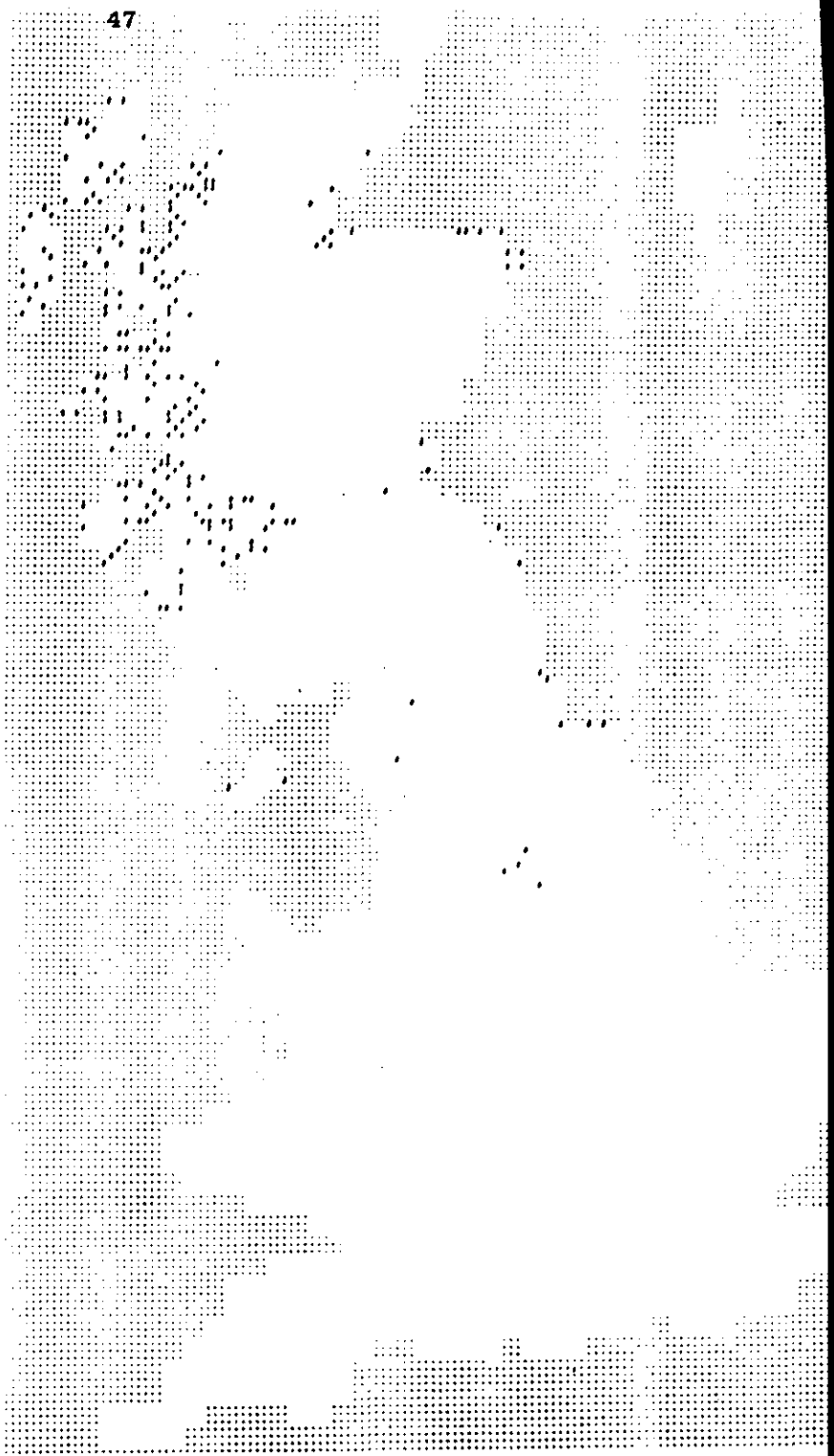
Percentage cover of major species

Perennial rye grass	10.9
Ling heather	7.3
Common bent	4.1
Purple moor grass	6.8
Yorkshire fog	2.1
White clover	1.0
Cocksfoot	0.1
Matgrass	1.3
Bracken	0.9
Crested dogstail	1.8
Italian rye grass	0.9
Timothy	1.8
Deer grass	5.8
Sheeps fescue	4.0
Creeping bent	0.1

LANDSCAPE

Barbed wire
Slow streams
Ditches

LAND CLASS TWENTY-NINE



TOPOGRAPHY

Mean max. altitude (m)	.....	111
Mean min. altitude (m)	.....	5
Altitude class (mean percentage area)	0- 76m.....	51
	77- 198m.....	49
	199- 488m.....	5
	489-1189m.....	-
Slope (°)	.....	13

CLIMATE

Mean min. temp. January	(°)..	1.7
Mean max. temp. July	(°)..	16.7
Mean soil deficit	(mm)..	3.1
Mean annual rainfall	(mm)..	14.2
Mean snowfall	(days)..	31.5
Duration bright sunshine	(hrs)..	4.6

SOILS

Mean pH	4.7
Mean loss on ignition (%)	58.8

Percentage of total area

Brown earths.....	20.0
Rendzinas.....	-
Gleys.....	5.0
Gleyed brown earths.....	-
Brown podsolic soils.....	-
Rankers.....	25.0
Calcareous brown earths.....	-
Peaty podsols.....	7.5
Podsols.....	2.5
Peaty gleys.....	7.5
Peats.....	32.5

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	-
Other Crops.....	-
Horticulture.....	-
Leys.....	0.1
Permanent grass.....	0.7
Rough pasture.....	8.4
Bracken.....	2.5
Rushes.....	2.5
Moorland.....	15.1
Peatland.....	15.0
Mountain grass.....	0.4
Woodland.....	8.4
Cliffs/sand/mud.....	10.2
Built-up.....	11.1

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	4.8
Ling heather.....	34.8
Common bent.....	2.4
Purple moor grass.....	15.3
Yorkshire fog.....	0.1
White clover.....	0.4
Cocksfoot.....	1.4
Matgrass.....	2.0
Bracken.....	4.3
Crested dogstail.....	-
Italian rye grass.....	-
Timothy.....	0.1
Deer grass.....	5.6
Sheeps fescue.....	0.4
Creeping bent.....	1.0

LANDSCAPE

Rock outcrop
Rocks
Boulders
Slow streams
Sand/gravel
Seepages of water
Rocky/pebble shores

LAND CLASS THIRTY

TOPOGRAPHY

Mean max. altitude (m)	.....	144
Mean min. altitude (m)	.....	34
Altitude class 0- 76m	.....	50
(mean 77- 198m	.....	39
percentage 199- 488m	.....	12
area) 489-1189m	.....	-
Slope (°)	.....	8

CLIMATE

Mean min. temp. January	(°)..	2.4
Mean max. temp. July	(°)..	16.3
Mean soil deficit	(mm)..	2.3
Mean annual rainfall	(mm)..	14.9
Mean snowfall	(days)..	26.8
Duration bright sunshine	(hrs)..	4.8

SOILS

Mean pH	4.5
Mean loss on ignition (%)	81.9

Percentage of total area

Brown earths.....	7.5
Rendzinas.....	-
Gleys.....	-
Gleyed brown earths.....	-
Brown podsolic soils.....	-
Rankers.....	2
Calcareous brown earths.....	-
Peaty podsols.....	10.0
Podsols.....	2.5
Peaty gleys.....	2.5
Peats.....	57.5

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	-
Other Crops.....	-
Horticulture.....	-
Leys.....	-
Permanent grass.....	-
Rough pasture.....	3.1
Bracken.....	1.9
Rushes.....	3.3
Moorland.....	17.3
Peatland.....	49.6
Mountain grass.....	2.7
Woodland.....	6.0
Cliffs/sand/mud.....	6.2
Built-up.....	0.4

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	-
Ling heather.....	20.6
Common bent.....	1.3
Purple moor grass.....	24.0
Yorkshire fog.....	0.9
White clover.....	-
Cocksfoot.....	-
Matgrass.....	-
Bracken.....	2.0
Crested dogstail.....	-
Italian rye grass.....	-
Timothy.....	-
Deer grass.....	6.8
Sheeps fescue.....	1.4
Creeping bent.....	0.3

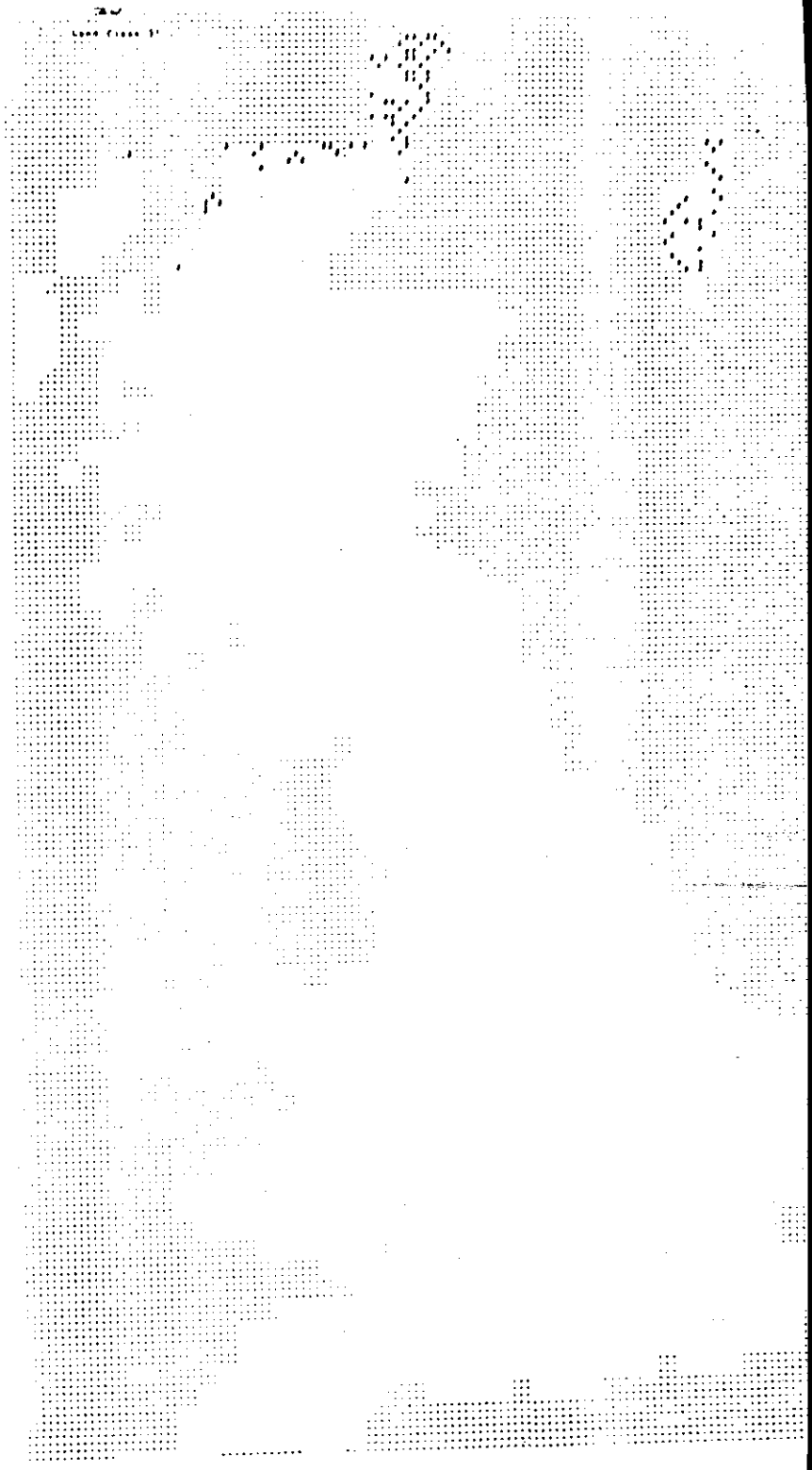
LANDSCAPE

Rocky shores

Lochs

Fast streams with gravel bottoms and peat

LAND CLASS THIRTY-ONE



TOPOGRAPHY

Mean max. altitude (m)		69
Mean min. altitude (m)		2
Altitude class (mean percentage area)	0- 76m	54
	77- 198m	47
	199- 488m	-
	489-1189m	-
Slope	(°)	8

CLIMATE

Mean min. temp. January	(°)	1.3
Mean max. temp. July	(°)	15.1
Mean soil deficit	(mm)	4.0
Mean annual rainfall	(mm)	9.9
Mean snowfall	(days)	59.6
Duration bright sunshine	(hrs)	4.3

SOILS

Mean pH	4.9
Mean loss on ignition (%)	39.6

Percentage of total area

Brown earths	27.5
Rendzinas	-
Gleys	5.0
Gleyed brown earths	7.5
Brown podsolic soils	-
Rankers	7.5
Calcareous brown earths	-
Peaty podsols	5.0
Podsols	17.5
Peaty gleys	2.5
Peats	27.5

LAND USE

Percentage of total area

Wheat	-
Barley	1.3
Other Crops	2.3
Horticulture	-
Leys	3.6
Permanent grass	10.8
Rough pasture	6.9
Bracken	1.7
Rushes	-
Moorland	24.4
Peatland	4.5
Mountain grass	6.7
Woodland	0.8
Cliffs/sand/mud	9.1
Built-up	1.6

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass	2.3
Ling heather	13.6
Common bent	6.0
Purple moor grass	0.1
Yorkshire fog	4.6
White clover	6.4
Cocksfoot	1.1
Matgrass	5.4
Bracken	2.9
Crested dogstail	0.6
Italian rye grass	1.6
Timothy	1.6
Deer grass	0.3
Sheeps fescue	2.6
Creeping bent	-

LANDSCAPE

Rocky shores

LAND CLASS THIRTY-TWO

TOPOGRAPHY

Mean max. altitude (m)	.....	110
Mean min. altitude (m)	.....	33
Altitude class 0- 76m	.....	69
(mean 77- 198m	.....	31
percentage 199- 488m	.....	-
area) 489-1189m	.....	-
Slope (°)	.....	7

CLIMATE

Mean min. temp. January	(°)..	1.4
Mean max. temp. July	(°)..	15.2
Mean soil deficit	(mm)..	2.8
Mean annual rainfall	(mm)..	12.1
Mean snowfall	(days)..	51.6
Duration bright sunshine	(hrs)..	4.4

SOILS

Mean pH	4.6
Mean loss on ignition (%)	68.0

Percentage of total area

Brown earths.....	7.5
Podzols.....	-
Rankers.....	5.0
Gleyed brown earths.....	7.5
Other podsolic soils.....	-
Rankers	10.0
Calcareous brown earths.....	-
Peaty podsols.....	7.5
Peaty soils.....	-
Peaty gleys.....	7.5
Peats.....	55.0

LAND USE

Percentage of total area

Wheat.....	-
Barley.....	2.5
Other Crops.....	1.2
Horticulture.....	-
Leys.....	6.6
Permanent grass.....	4.1
Rough pasture.....	1.8
Bracken.....	-
Rushes.....	0.5
Moorland.....	19.5
Peatland.....	29.2
Mountain grass.....	5.3
Woodland.....	7.0
Cliffs/sand/mud.....	3.8
Built-up.....	1.1

NATIVE SPECIES

Percentage cover of major species

Perennial rye grass.....	5.5
Ling heather.....	13.8
Common bent.....	0.4
Purple moor grass.....	12.4
Yorkshire fog.....	0.4
White clover.....	1.5
Cocksfoot.....	0.5
Matgrass.....	1.8
Bracken.....	-
Crested dogstail.....	0.1
Italian rye grass.....	1.3
Timothy.....	3.1
Deer grass.....	4.6
Sheeps fescue.....	1.1
Creeping bent.....	-

LANDSCAPE

Eroding peat
Streams with peat bottoms
Aquatic vegetation